Austria Sch24	Indonesia Rp3100	Philippines Pes40	Bahrain Din0.700	Iran [illegible]	Portugal Es150
Belgium BFr55	Israel Shk5.50	Qatar QR9.00	Cyprus C£0.90	Italy L2000	S.Arabia SR7.00
Denmark DKr12.00	Jordan Fils1000	Singapore S$4.10	Egypt E£2.25	Kuwait Fils.500	Spain Pta165
Finland FM8.80	Lebanon L£480.00	Sweden SKr12	France FFr7.50	Lux LFr55	Switz SFr2.50
Germany DM2.60	Malaysia M$4.25	Thailand Bht50	Greece Dr150	Morocco Dh6.00	Tunisia Din0.800
Hong Kong HK$12	Neth Fl3.25	Turkey L1400	Hungary Fl107	Nigeria Naira10	UAE Dh7.00
Iceland IKr160	Norway NKr12.00		India Rs15	Oman OR1	

EUROPE'S BUSINESS NEWSPAPER

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US WELFARE
Gaping holes in the not so Great Society
Page 20

World News

South Africa killings may jeopardise ANC talks

South African police shot dead four black youths and wounded about 20 during a demonstration at a black township near Johannesburg. The incident could jeopardise negotiations between Pretoria and the African National Congress. Page 4

Contra ceasefire

Nicaragua and leaders of the US-backed Contra rebels signed a ceasefire in Managua, putting an end to almost nine years of war which has cost about 50,000 lives. Page 22

Bus bomb kills 15

At least 15 people were killed and 37 injured when a bomb exploded on a bus near Pathankot in India's Punjab state.

Jerusalem threat

Leaders of the Palestinian uprising in the Israeli-occupied territories said they had sentenced an Armenian businessman to death for leasing a building in the Old City of Jerusalem to Jewish settlers.

Zaire air crash

All but one of the 18 people on board, including an army colonel, died when their Hercules transport aircraft crashed near Kinshasa, the Zaire capital. Twenty people were missing after a twin-engined aircraft crashed off Contadora Island, Panama.

Flight disruption

A strike by French air traffic controllers will hit flights today to and from the Paris airports of Charles de Gaulle and Orly.

Seville explosion

A parcel bomb explosion which blew off the hand of a secretary at the office of the Seville Expo-92 World Fair was believed to be the work of Basque separatists.

Better friends

The Vatican and Czechoslovakia restored diplomatic ties two days before Pope John Paul was due to visit, formally ending four decades of sour Church-state relations.

Absolute rule ends

King Birendra of Nepal swore in Krishana Prasad Bhattarai as Prime Minister, ending 30 years of absolute rule by the monarchy in the Himalayan kingdom. Page 4

Australian floods

Ten people are missing in floods which have hit eastern Australia, isolating outback townships and killing more than 15,000 sheep.

Diplomats ousted

Turkey asked West Germany to withdraw eight diplomats from Ankara, apparently in retaliation for the expulsion of 15 Turkish diplomats from Bonn recently. Page 2

Mongolian reform

Mongolia's leadership has dissolved the ministry of public security in Ulan Bator in another step toward reform.

Tight-lipped

A Yugoslav on firearms charges appeared in court in Malaga, Spain, with his lips sewn together to avoid making a statement.

Business Summary

IMF issues warning to Spanish Government

THE International Monetary Fund warned the Spanish Government that it must swiftly reach an agreement with employers and trade unions on boosting competitiveness to avoid a further deterioration in inflation and the current account deficit. Page 22

US Securities and Exchange Commission unanimously approved a rule which will exempt billions of dollars of privately placed shares and bonds from its registration requirements, a move which it believes will create a much larger and more liquid market with more foreign participation. Page 30

MARKETS: UK equity market hit a new low. The FT-SE 100 share closed at 2,184.7, down 21.2 on the day, Page 22; Tokyo - After moving between a low of 29,296.25 and a high of 30,034.45, the Nikkei closed 696.35 up at 29,945.41. Back page, Section II

FRANK Lorenzo, the oft-maligned maverick of US aviation, has lost control of Eastern Air Lines, the ailing carrier he has struggled for a year to rebuild under the protection of the US bankruptcy court. Page 23

GROUP of Seven industrialised countries called for closer international co-operation and tougher laws to combat drug money laundering. Page 22

ALCATEL, French electronics group, said earnings soared by one-third in 1989 and that one of its owners, Compagnie Générale d'Electricité, has increased its stake. Page 23

AMERICAN Express, US financial services and travel group, announced a net loss of $620m in the first quarter due to the troubles at Shearson Lehman Hutton, its brokerage subsidiary. Page 23

NISSHO Iwai Corporation, Japanese industrial group, Austpac, a small Australian gold exploration company, and Buller Minerals, a New Zealand mineral company, are going ahead with joint venture plans for a $76m titanium slag plant. Page 4

WESTERN European new car sales were running at a record level in the first quarter of 1990, continuing the longest period of sustained growth enjoyed by the western European car industry. Page 2

US TRADE officials expressed satisfaction on the implementation of trade agreements with South Korea. Page 4

ALLIED-LYONS, UK food and drinks group, agreed to sell Embassy Hotels for $331.28m to Jarvis Hotels. Page 10

BNP, Banque Nationale de Paris, largest French state-owned bank, has reported an 11 per cent increase in net profits. Page 25

GENERAL Dynamics and Northrop, two leading US defence contractors, reported higher first-quarter earnings. Page 24

CONNER Peripherals, fast growing computer company, may be forced to slow down because of a shortage of essential components. Page 24

France and Germany launch new drive for European union by 1993

By George Graham in Paris, David Marsh in Bonn and Philip Stephens in London

FRANCE and West Germany yesterday launched a joint initiative to achieve European political and monetary union by 1993 in a dramatic attempt to bring integration of the Community into line with the quickened pace of German unification.

President François Mitterrand and Chancellor Helmut Kohl issued a joint message to Mr Charles Haughey, the Irish Prime Minister and current President of the European Council, calling for work to begin on an intergovernmental conference on political union. This would be held in parallel with the conference due to open before the end of the year on economic and monetary union.

The Franco-German initiative, however, drew a decidely frosty reception from Mrs Margaret Thatcher, the British Prime Minister. She said that the proposals had not been properly defined.

Mrs Thatcher also made it clear that she did not want the EC summit in Dublin at the end of this month to become preoccupied with proposals for political union.

The Franco-German message said: "In view of the profound transformations in Europe, of the establishment of the internal market and of the achievement of Economic and Monetary Union (EMU), we think it necessary to accelerate the political construction of the 12-member Europe."

"We think the time has come to transform the whole relationship between member states into a European Union and to give it the necessary means to act."

It called for preparatory work to begin immediately on an intergovernmental conference, with the aim of:

- reinforcing the democratic legitimacy of the European Union;
- making Europe's institutions more effective;
- ensuring the unity and coherence of the Union's economic, monetary and political actions;
- defining and putting into effect a common foreign and defence policy.

As the French and US Presidents met in Florida, Bush Administration officials said the US would postpone production of short range nuclear rockets to replace Lance missiles in West Germany. The US aims to respond to developments in Europe and impending German unification while maintaining Nato's role in the western alliance. Page 22

Mr Mitterrand and Mr Kohl ask for a preliminary report from foreign ministers to be presented to the June summit of the EC in Dublin, and a final report to the December summit in Italy.

"Our objective is that these fundamental reforms – economic and monetary union as well as political union – should come into force on January 1 1993, after ratification by national parliaments."

On the French side, the joint initiative represents the Government's conviction that the best response to German unification and the upheavals in eastern Europe is to press ahead with the development of the European Community.

French officials yesterday emphasised that the political union initiative showed the continued importance of the Paris-Bonn axis in the EC and disproved the widespread impression of an increasing distance between Mr Mitterrand and Mr Kohl.

West German officials said that work on drafting yesterday's declaration had been initiated by Bonn.

By agreeing to the target of 1993, Mr Kohl has moved firmly into line with thinking both in Paris and at the EC Commission.

Brussels has previously set out a rough plan for negotiations during 1991 on an intergovernmental conference (IGC) on monetary union, leaving 1992 for treaty ratification. This would allow implementation of EMU by 1993 – very close to yesterday's Paris-Bonn goal.

The timetable accelerates significantly the ideas for bringing EMU into force discussed at last December's EC summit in Strasbourg.

Mrs Thatcher, speaking in the House of Commons before her meeting today with Mr Haughey, said Britain had made it clear that it would not accept stage two and three of the Delors report which call for the creation of a single European currency.

She said that the summit needed to address a whole range of practical issues including German unification, relations with Eastern Europe and with members of EFTA and the completion of the single European market.

Marshall Field sold to Dayton Hudson

By Karen Zagor in New York and Barbara Durr in Chicago

BAT Industries, the British conglomerate, yesterday took a big step forward in the disposal of its US retail operations when it agreed to sell Marshall Field, the department store chain, to Dayton Hudson for $1.04bn in cash.

The price, which compares with $800m expected by most analysts, bodes well for the sale of Saks Fifth Avenue, BAT's other big US retail subsidiary. The closing date for bids on Saks is next week and BAT hopes to have a sale agreement by the end of April.

BAT is paring down its businesses to concentrate on tobacco and financial services operations as part of a restructuring designed to fend off a threatened bid from Sir James Goldsmith's Hoylake consortium. It expects the reshaping to be completed by the end of June.

The price reflects the strategic appeal of Chicago-based Marshall Field to Dayton Hudson, which also operates fashionable department stores in the Midwest, but has no Chicago outlet.

Mr Jeffrey Branman, managing director at Financo in New York, which specialises in retailing mergers and acquisitions described the deal as "very logical" for Dayton.

It also shows that a healthy US department store can still fetch a high price. Estimated prices for Field and Saks were revised downwards after Bloomingdale's failed to attract $1bn when it was put on the block late last year.

BAT bought Saks, which it describes as "the nation's premier high fashion retailer," in 1973 and consolidated its presence in US retailing with the acquisition of Marshall Field in 1982.

Field's elegant flagship store on Chicago's State Street has dominated the city's shopping scene for 130 years. Last year it had revenues of more than $1bn from its 24 stores.

Mr Patrick Sheehy, BAT chairman, said Field's management had made a credible bid for the retail business, but the Dayton Hudson offer was "clearly superior from both a quantitative and qualitative point."

Dayton Hudson, which operates 666 stores and had revenues of $13.64bn in 1989, said

Continued on Page 22
Lex, Page 22; World stock markets, Page 50

Lithuanians stand firm against Soviet blockade

By John Lloyd in Moscow and Karen Fossli and Robert Taylor in Oslo

DEFIANT Lithuanians yesterday prepared to stand up to a Soviet energy blockade as Moscow cut gas flows to the republic by more than 80 per cent the day after closing down its oil pipelines.

In Washington, the White House said that President George Bush was consulting with US allies on how to repond to the tightening Soviet embargo on Lithuania.

In Moscow, Mr Vadim Perfilyev, a Soviet Foreign Ministry spokesman, said that the oil and gas cuts could be followed by other measures which he did not specify.

He said the Soviet Government was still awaiting a response to an ultimatum issued by President Mikhail Gorbachev, the Soviet leader, on Friday in which he said that supplies of all materials to the republic which could be exported for hard currency would be cut if the republic's March 11 declaration of independence was not rescinded.

Mr Vytautas Landsbergis, the Lithuanian President, said the republic would hold out indefinitely against economic sanctions. "Lithuania can hold out for 100 years without gas and oil," he said on a French television programme.

- **Lithuania's dependence on Soviet supplies**
- **Moscow leadership's limited room for manoeuvre**
- **Norway treats visit as coincidence**
- **Reports, Page 3**

"Until 1944, Lithuania lived off its own products and had a stable economy. It can survive."

The republic's defiant attitude followed a sharp tightening of Moscow's threatened energy blockade as Soviet authorities cut gas flows to the republic from 18m cubic metres daily to just 3.5m cu m.

The republic's Maseikia oil refinery was reported to have enough fuel to last only two days after all supplies of crude from Moscow were cut on Wednesday morning.

At the same time, the Ignalina nuclear power station shut down both power plants – reportedly for repairs, although local officials say that no overhaul of the plant had been planned.

Lithuanians were pinning hopes on the visit to Oslo by Mrs Kazimiera Prunskiene, the Prime Minister, to secure alternative supplies from the Norwegians. Mrs Prunskiene was yesterday also invited to visit Copenhagen on Saturday for talks with Mr Poul Schlüter, the Danish Prime Minister.

However, it remained unclear last night whether the Lithuanian Prime Minister would be meeting any Norwegian oil companies directly during her stay in Oslo. Moreover, the Norwegian Government made clear that it was not actively promoting talks on supplying oil.

Mr Kjell Magne Bondevik, the Norwegian Foreign Minister, said: "The selling of oil and gas is a matter for the companies. If the Lithuanian Government asks for their assistance it is free to do so... we will not stop them... but they are on their own.

"We do not use oil and gas as an element in our foreign policy," he said.

An executive for Statoil, the Norwegian state oil group said the company was "sitting on the sidelines."

Statoil also believes Mrs Prunskeine is being unrealistic because of the enormous logistical problems involved in transporting the oil from the

Continued on Page 22

E Europe needs welfare nets, says Camdessus

By Stephen Fidler, Euromarkets Correspondent, in London

EAST EUROPEAN countries introducing radical economic reform should ensure they have strong social welfare systems in place, the managing director of the International Monetary Fund, Mr Michel Camdessus, said yesterday.

In a speech in London, he said that a strong social safety net to help, for example, the new unemployed would increase the chance of success of the programmes.

"The stronger the safety net, the stronger will be the case for governments to stand firm in resisting pressures to maintain controlled prices on basic goods or to postpone the liquidation of unviable enterprises," said Mr Camdessus, whose organisation has often been criticised for neglecting the social consequences of its economic programmes.

He acknowledged that heavy demand for foreign capital in east Europe would put upward pressure on worldwide interest rates.

He said governments in industrialised countries should reduce their demand for scarce private savings and allow real interest rates to stabilise, by making efforts to close their budget deficits.

Mr Camdessus said the economic reform programmes of east Europe carried serious risks which would be heightened if western financial support proved inadequate.

Poland's IMF-supported economic plan, which began at the turn of the year, is the most radical yet seen in the region. Inflation, the key to success, had fallen in March and the $1bn stabilisation fund which industrialised countries provided to support the Polish currency had hardly been needed, he said.

Camdessus on east European reform, Page 21

Gorbachev sets out on collision course with Estonia and Latvia

By John Lloyd in Moscow

MR MIKHAIL GORBACHEV, the Soviet leader, and the two Baltic republics of Estonia and Latvia were yesterday set on a collision course following the breakdown of talks in Moscow.

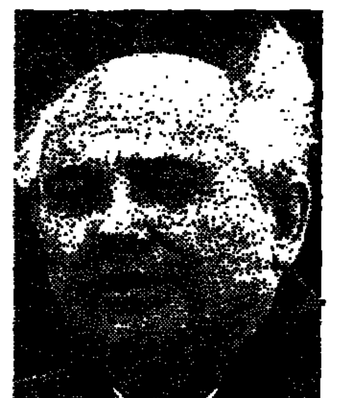
The meeting ended in "acrimony and disappointment despite Mr Gorbachev's offer to the republics of a very large degree of autonomy if they remained in the union.

This would include a "confederative status" and, in the case of Latvia, the removal of all military bases.

Mr Gorbachev also appeared to threaten the republics, saying that if Estonia and Latvia pursued independence, no talks could take place and that the republics would have "no future" outside of the USSR.

Independence, he insisted, was only possible under the new law on secession, adopted last month.

The talks were conducted between Mr Nikolai Ryzhkov, the Prime Minister and Mr Alexander Yakovlev, a senior and the most liberal member of the Communist Party Politburo and Mr Arnold Ruutel and Mr Anatoly Gorbunovs, the respective (communist and moderate nationalist) Supreme Soviet Chairmen of Estonia and Latvia.



Gorbachev: collision course

Mr Ruutel told Estonian radio after the talks that he was "disappointed," and that he had insisted to the Soviet leaders that the desire for independence was held by most Estonians.

However Mr Gorbachev, he said, "did not want to listen," and no further talks were agreed. He said Mr Gorbachev had insisted he must tell all Estonians that their future would be in jeopardy if they left the union.

Next week, the Estonian parliament will excise the "Soviet Socialist Republic" from its official name and re-emerge as simple "Estonia". The former flag of the pre-war republic will become the national flag.

Mr Ivans commented afterwards that "Mr Gorbachev does not seem to understand that the demand for independence is not confined to extremists, but is shared by the majority." The Latvian Supreme Soviet would also adopt a declaration of independence, early next month, he said.

However, both delegations have agreed that commissions of experts, drawn from the republics and the Soviet sides, should begin work on the outstanding issues between them.

Weekend FT

Tomorrow: The origin of life, the universe and everything

The feuds and tangled fortunes of Louis Vuitton

CONTENTS

US telecoms commission chief starts to flex his muscles

Mr Alfred Sikes, chairman of the US Federal Communications Commission, has recently asserted his authority by launching a probe into competition within the country's long-distance telephone services

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MARKETS

STERLING
New York lunchtime: $1.6438
London: $1.644 (1.6375)
DM2.7575 (2.7375)
FFr9.2675 (9.2025)
SFr2.4375 (2.43)
Y257.25 (260.5)
£ Index 87.1 (86.7)

GOLD
New York: Comex Jun $380.7 (379.7)
London: $376.25 (375.25)

N SEA OIL (Argus)
Brent 15-day Jun $17.125 (16.30)

Chief price changes yesterday: Page 23

DOLLAR
New York lunchtime:
DM1.6795
FFr5.6455
SFr1.4855
Y156.6
London:
DM1.677 (1.672)
FFr5.6375 (5.62)
SFr1.4825 (1.4835)
Y156.45 (159.1)
$ Index 68.1 (68.3)
Tokyo close: Y157.75

US lunchtime rates
Fed Funds 8 5/16 %
3-mo Treasury Bills: yield: 8.025%
Long Bond: 96 3/32
yield: 8.867%

STOCK INDICES
FT-SE 100: 2,184.7 (−21.2)
FT Ordinary: 1,712.2 (−20.4)
FT-A All-Share: 1,085.20 (−0.9%)
New York lunchtime:
DJ Ind. Av. 2,729.95 (−2.93)
S&P Comp 340.19 (−0.53)
Tokyo: Nikkei 29,945.41 (+696.35)

LONDON MONEY
3-month Interbank: closing 15 5/32 % (same)
Liffe long gilt future: June 79 3/32 (same)

Airbus unveils plan to recover lost output

By Paul Betts, Aerospace Correspondent, in Toulouse

THE executive board of Airbus Industrie, the European aircraft manufacturing consortium, is today expected to approve an aircraft production recovery programme.

The aim of the programme is to catch up as quickly as possible on lost output following the four-month strike at two British Aerospace (BAe) plants supplying wings for Airbus aircraft.

The UK strike was yesterday described by Mr Jean Pierson, the Airbus managing director, as one of the longest in civil aircraft history.

He confirmed the strike would cost the consortium \$180m-\$200m but he added that the internal dispute between the four Airbus partners over sharing the financial costs caused by the strike would not affect the production recovery programme.

BAe, which holds a 20 per cent stake in Airbus, could face a bill of between \$70m and \$80m if the other partners including Aerospatiale of France, MBB of Germany and Casa of Spain are successful in pressing claims that the British group should pay 40 per cent of the strike costs under article seven of the Airbus regulations. But BAe claims this article does not apply in the event of a strike.

Assembly of Airbus aircraft fell to under one a month when the strike ended last March. He said output was expected to pick up to about four aircraft a month by June. The aim is to reach a monthly production rate of 10 A320 twin engine narrow body aircraft by the end of 1991 and four to five wide body A300-A310 aircraft by the autumn of next year.

Airbus production will fall short by about 30 aircraft of its target of 138 this year.

The pre-strike target for 1991 was 149 aircraft. To catch up, the consortium will have to produce 179 aircraft next year. This would entail above normal monthly production rates.

To help BAe to meet the recovery programme targets, Aerospatiale and MBB are planning to send to the UK about 20 French and German workers. Subcontracting some of its Airbus work to other companies is also being considered.

Mr Pierson also said Airbus would sign tomorrow an agreement with Aeritalia whereby the the Italian state aerospace group would supply parts for the new A321 twin jet aircraft, a stretched version of the A320 to be assembled in Hamburg.

FRANCO-GERMAN DECLARATION ON EUROPEAN POLITICAL AND MONETARY UNION

Bonn initiative behind ambitious target

By David Marsh in Bonn

YESTERDAY'S joint declaration by Paris and Bonn on European political and monetary union follows weeks of diplomatic effort by West Germany to head off Community worries about the effects of German unity.

The initiative came from Bonn. The document released yesterday simultaneously in the two capitals was worked out in telephone conversations between officials since the Easter holidays.

The goal of bringing both political and monetary union into effect by 1993 is highly ambitious. But Mr Helmut Kohl, the West German Chancellor, has been at pains to sketch out the maximum amount of common ground with Paris before next week's Franco-German consultations in Paris and the Community summit in Dublin on April 28.

Officials at the Chancellery in Bonn admit that relations between Mr Kohl and President François Mitterrand have been "damaged" by irritation in Paris over the momentum of German unity. The West German government, however, has constantly played down any question of a crisis.

The message intended by yesterday's statement is that, after several months of engine trouble, the Franco-German Community motor is back in full working order.

Mr Mitterrand has been annoyed by Mr Kohl's lack of consultation both on his 10-point plan for German unity last November – which has now been superseded by events – and by proposals for German monetary union.

Clear indications of the President's misgivings came in his visit to Kiev in December to see President Mikhail Gorbachev, and his earlier trip to East Berlin and Leipzig.

Mr Mitterrand's tactics misfired. Both visits failed to have any effect on the breakneck pace of German unity.

There is a clear element of risk in proposals for political and monetary union by 1993. Yesterday's initiative was not discussed with the Bundesbank, which has voiced considerable scepticism in the past about the feasibility of speedy European monetary union.

The initiative will spark opposition from Britain, where Mrs Margaret Thatcher has already made clear her opposition to accelerating European integration.

In a conciliatory gesture to London, Bonn and Paris decided that yesterday's document should be published in English as well as French and German to avoid the impression of a deliberate affront to the UK. Bonn officials say they hope that, by concentrating the Community's mind on political union, Britain can eventually be persuaded to play a fuller role in integrating the Community. "Britain always jumps on the train in the end," is how one official puts it.

The Franco-German accord on monetary union follows a meeting of minds at the two countries' bilateral Finance Council in Paris earlier this month. Mr Pierre Bérégovoy, the French Finance Minister, now says he agrees with Mr Kohl's ideas for a fully independent European central bank geared to price stability.

Mr Kohl and Mr Karl Otto Pöhl, the Bundesbank president, agree over transferring sovereignty to a European central bank. Significantly, they would both like it to be in Frankfurt.

The key question here is how many other Community members – including countries like Italy which have traditionally seen the central bank as a source of funds for the government – would agree to tough German criteria.

Another stumbling block will come over defence and security policies – one of the areas for discussion singled out in yesterday's document. Bonn is very unhappy that, in spite of the changed European power balance, Paris appears to have no new ideas on restructuring Nato.

Whatever the harmony propagated in yesterday's statement, German worries about France's short-range nuclear missiles, for instance, are almost certain to come up at the bilateral summit in Paris next week.

Kohl (right) and Mitterrand: Bonn-Paris axis back in harmony

No let-up, Polish PM tells Solidarity

By Christopher Bobinski in Gdansk

SOLIDARITY, Poland's trade union movement, tried yesterday to turn its back on the tribulations of the martial law years and celebrate its new-found position as the country's leading political force at its congress here.

Some 450 delegates representing just under 2m members gathered for the six-day congress in the Olivia Hall where they had last met in September 1981.

But the harmonious atmosphere inside the hall was marred by a tram-drivers' pay strike in the city which local Solidarity leaders had failed to head off.

Outside the hall, radical critics of the policies of Mr Lech Walesa, the Solidarity leader, handed out leaflets declaring "Down with price rises" and "Down with the Soviet Occupation" – a reference to the continuing presence of Soviet troops in Poland.

At the congress, delegates applauded Mr Walesa, who is standing for re-election, as he told them that they were to elect a leadership for the union to prepare a programme for the future.

Mr Tadeusz Mazowiecki, the Prime Minister, pledged that his Government "served the union's cause which was that of a free and independent Poland." But he gave no hint that he would be easing his International Monetary Fund-approved austerity programme and warned against giving in to "populist" solutions.

● The Czechoslovak parliament has approved long-awaited laws permitting private enterprise and the establishment of joint stock companies, Reuter reports from Prague.

The approval of government draft bills came late on Wednesday as the Federal Assembly discussed a welter of reforms designed to lead Czechoslovakia towards a market economy.

Companies urged to invest in E Germany

By Lucy Kellaway in Brussels

WESTERN companies are missing valuable business opportunities in East Germany, and thereby may be endangering competitive conditions within the European Community, Sir Leon Brittan, competition commissioner said yesterday.

He bemoaned the fact that so far only West German companies have shown interest in investing in East Germany, and he called on companies from other countries to play a more active role.

He said that the absence of interested investors from outside Germany threatened to put the competition authorities in the difficult position of having to choose between letting eastern European companies collapse or allowing a merger with a West German companies that would lead to a large reduction in competition.

Sir Leon, who was addressing the Centre for European Policy Studies in Brussels, expressed concern that a rush of such mergers might preserve the domination of the structure in East Germany and reduce competition in West Germany.

Other countries were being put off investing there partly through a mistaken belief that the German authorities might wish to keep the area for their own companies, he said.

These companies were misreading the political risks involved, he said, and were failing to make the distinction between investing in East Germany "where you really know what sort of political regime will be there in a very short time," and in other East European countries. "My impression is that people are not even engaging in the process of deciding if there are opportunities there or not," he said.

E Germany announces reforms

By Leslie Colitt and agencies in East Berlin

MR GERHARD POHL, East Germany's Economics Minister, yesterday proposed a bold package of economic reforms aimed at the creation of free markets.

The measures would make it possible for private companies and banks to operate freely from the end of May.

Speaking to reporters after talks with Mr Helmut Haussmann, his West German counterpart, Mr Pohl explained that a law giving people freedom to set up businesses should be on the statute books by the end of May, while a new banking law would allow private banks for the first time.

His radical proposals followed a speech by Mr Lothar de Maizière, the new Christian Democratic Prime Minister, who yesterday presented his coalition Government's programme to the Volkskammer (Parliament).

In a somewhat more cautious tone he was aiming to reassure East Germans that they would not lose out economically during the unification process.

Mr de Maizie're said his Government aimed to create 500,000 jobs this year in new medium-sized private companies to compensate for expected mass redundancies in state industries. Favourable tax conditions would be created for small and medium-sized private sector firms as well as for German and foreign investors.

With pending German monetary union, he called for the elimination of all domestic debts of East German private and co-operative companies to improve their competitiveness.

The plan was to convert state company debts, which total East Marks 200bn, at "at least" two East German Marks for one D-Mark. However Mr de Maizière insisted that wages, savings and pensions be converted into D-Marks at one-to-one.

Renault fails to persuade Brussels in state aid row

By William Dawkins in Paris and Lucy Kellaway in Brussels

RENAULT, the French state-owned car maker, yesterday denied it was contravening European Community state aid restrictions, amid signs that the Commission is about to demand repayment of part of a FFr12bn government debt write-off.

EC competition authorities are understood to be unconvinced by a report on Renault's restructuring plans submitted by the French Government in February, and to have asked for more details. Commission officials expect to reach a decision within weeks on the two-year-old dispute, one of the biggest and most sensitive EC state aid cases.

Renault accepts that the 11.5 per cent reduction in car-making capacity it has made over the past three years is below the 15 per cent originally set by the Commission as a condition for receiving the debt write-off. But it maintains that it will hit this target by the end of 1992, when it has completed the closure of two plants in Billancourt, near Paris and in the Spanish town of Valladolid.

It will fulfil the other condition, the abolition of its old state-protected status as a "regie", as a result of the alliance with Volvo, the Swedish car group.

Commission officials stress that while Renault's proposals are probably unacceptable, they are still negotiating with the Paris Government.

Turkey expels W German envoys

Turkey yesterday asked West Germany to withdraw eight diplomats from Ankara, apparently in retaliation for the expulsion of 15 Turkish diplomats from West Germany recently, writes Jim Bodgener in Ankara.

The Turkish diplomats were said to have been gathering information on suspected Turkish extremists and Kurdish activists.

Gloomy view from inside privatised industry

Leslie Colitt talks to a factory owner back in his old office

MR KURT RICHTER, owner of the largest nationalised factory in East Germany to be privatised, sees a painful transition period for East German industry on the road to a market economy.

Eltz, the country's largest producer of aluminium window-frames, with sales of more than 40m East Marks last year, was nationalised in 1972 with 11,000 other companies. It was returned to the Richter family on April 1.

Seated in the same East Berlin office that he and his father used to occupy before nationalisation, Mr Richter forecast that East German industrial output would plummet after monetary and economic union with West Germany, which is to take place by July 1.

Industrial production has already fallen by 4.7 per cent in the first quarter and Mr Richter believes that most of the huge and unwieldy Kombinate (industrial groups) will not be viable even after they are broken up.

"I'm afraid we will get millions of unemployed and that it will take three to five years before new companies will begin production," he said.

He hopes to keep redundancies in his own company to a minimum by moving administrative personnel into production.

Mr Richter was given a warm welcome by his former employees who remained loyal to him to the end.

He said he was firmly opposed to the proposal under monetary union raised in Bonn for a one-to-one conversion rate for East German companies. Most of them were saddled with heavy debt and would have to make repayments in D-Marks after July 1. A two-to-one rate was barely acceptable.

However he was in favour of paying employees at a one-to-one rate, which would act as an incentive. His own 350 employees earned an above-average 1,500 Marks gross a month, still less than half the prevailing West German wage. The obsolescent machinery in the factory meant their productivity was also half that of equivalent West German workers. Wages could only rise in line with productivity gains, he said.

Throughout the 18 years of nationalisation – the state paid his family 10,000 Marks a month compensation minus a large chunk in taxes – the Richters never gave up hope of regaining control of their 100-year-old family-owned company.

Along with many others they were forced in the late 1950s to give the state a commanding share in the company – in their case 90 per cent – to obtain investment funds. They are repaying the 10 per cent share they surrendered in 1972 and will buy back the state's 90 per cent share as well.

Mr Richter said prospects were excellent for his own company and other small and medium-sized firms. He was already co-operating with several West German companies and was in line to receive West German European Recovery Programme (ERP) funds for East German entrepreneurs to buy desperately-needed machinery and tools.

French banks to report drug laundering suspects

By William Dawkins

FRENCH banks will be obliged to report suspicions that accounts are being used for laundering illicit drug earnings.

A report yesterday said that up to \$85.4bn of drug money is laundered in the US and Europe every year.

The French plan is the first practical result of a 15-nation action plan against money laundering, the initiative of the Group of Seven summit in Paris last July.

Experts yesterday unveiled the study which reckoned that sales of heroin, cocaine and cannabis in Europe and the US were \$122bn a year, of which between 50 and 70 per cent is invested or laundered.

The study, which accuses banks of frequently being unwitting accomplices in the recycling of illicit cash, makes 40 recommendations, including the lifting of bank secrecy for suspect accounts.

The French government will the proposals before parliament next month.

The French proposal applies to any financial intermediary, whether bank, stockbroker, or insurance company. They will be asked to pass their suspicions to Tracfin, an anti-laundering unit set up in the French Finance Ministry last January.

At present, French banks risk being sued for breaking confidentiality laws unless a police investigation is already under way.

Banks to boost Mediterranean clean-up loans

By David Thomas, Resources Editor

THE World Bank and the European Investment Bank yesterday proposed a substantial increase in loans for projects to improve the environment in countries bordering the Mediterranean.

The two banks, which made environmentally-related loans of \$5.6bn in the Mediterranean region in the 1980s, unveiled plans in Rome to boost environmental projects in the 18 Mediterranean countries.

The projects include control of marine pollution from the oil and chemicals industries, improving the management of solid and hazardous wastes, halting decline of coastal areas and improving water resources.

These projects are set out in a 93-page environmental programme for the Mediterranean.

The document warns of the environmental problems facing the region, including the discharge of 550 tons of pesticides and 650,000 tons of hydrocarbons every year into the Mediterranean. Pollution and over-fishing have cut fish stocks to 20 per cent of natural levels in many areas, it says.

The Environmental Programme for the Mediterranean. World Bank, 66 Avenue d'Iena, 75116 Paris, France.

Serb nationalists rebuffed in Kosovo

By Judy Dempsey in London.

IN WHAT amounts to a rebuff to Serb nationalists, the Yugoslav authorities yesterday dropped all charges against Mr Azim Vlasi, former party leader of the southern Yugoslav province of Kosovo.

The charges against Mr Vlasi, who was accused of "counter-revolution" along with 14 other party officials for allegedly instigating demonstrations by ethnic Albanians last year, were dropped by the country's public prosecutor. No explanation was given.

The bloody demonstrations in Kosovo, in which 50 people were killed, were sparked off following sweeping amendments to the Serbian constitution which gave Serbia direct control over the province.

The changes were introduced by Mr Slobodan Milosevic, the nationalist-inspired President of the republic who had repeatedly accused the ethnic Albanian majority of discriminating against the small Serb and Montenegrin minorities and of forcing them to leave the province altogether.

Control by Serbia over Kosovo was aimed at stemming the flow of migration and at imposing a pro-Serb leadership.

But despite emergency measures to quash the riots and several attempts to obtain evidence against Mr Vlasi who first went on trial last October, Serbia's strong-headed policies deepened the sense of grievance among the ethnic Albanians who wish to regain their autonomy from Serbia.

Nations divided on global warming cure

By John Hunt, Environment Correspondent

ENVIRONMENT ministers of 34 countries will try to agree targets for reducing the greenhouse gases which cause global warming at an international conference in Bergen, Norway, next month.

However, there are still wide differences of opinion between governments on the size and timing of the reductions.

The US, Canada and European countries will be represented at the conference, Action for a Common Future. It is a follow-up to the Brundtland Report of 1987 which called for sustainable economic development that will not damage the environment. The conference will seek international agreement and national commitments on ways to achieve this.

The draft declaration proposes that governments should tax environmentally-damaging products and activities and give fiscal incentives to discourage pollution. "Such actions would make prices, particularly those related to energy, reflect environmental costs and benefits more fully and thus send markets signals and provide incentives," it says.

The US will find it difficult to accept some of the proposals now that President George Bush is taking a cautious approach to global warming. The British Government could also find it hard to accept some of the proposals before its own white paper in the autumn, which will include economic measures to deal with environmental pressures.

The draft contains two alternative proposals to control emissions of carbon dioxide from the burning of fossil fuels, the main contributor to global warming.

The first, milder proposal, is to agree on stabilisation as soon as possible at levels to be considered by the Intergovernmental Panel on Climate Change and the Second World Climate Conference later this year. The second, tougher, proposal is to stabilise emissions at present levels by 2,000 as a preliminary target.

There is, however, a third, even more controversial, suggestion that there should be an investigation into whether a 20 per cent reduction in carbon dioxide emissions by the year 2,005 is feasible, as recommended by scientists at the Toronto Conference in 1988.

The draft calls on governments to promote energy-efficiency and the use of environmentally sound energy sources, and it urges that capital and environmental technology should be provided to eastern Europe and developing countries.

Strong car sales in western Europe defy forecasts

By Kevin Done, Motor Industry Correspondent

WESTERN European new car sales were running at a record level in the first quarter of 1990, continuing the longest period of sustained growth enjoyed by the western European car industry.

Sales in the first three months at 3.7m were 1.8 per cent higher than a year earlier, according to industry estimates.

In March alone sales were marginally higher at 1.35m, an increase of around 0.3 per cent, as continuing strong demand in France and Italy was balanced by falls in the UK and Spain and virtually unchanged sales in West Germany.

New car demand continues to defy industry forecasts that sales would weaken after five years of record sales.

New car registrations rose to nearly 13.5m last year and sales in each of the first three months higher than a year earlier.

In the first quarter new car sales rose in 11 of 17 markets across western Europe, including West Germany, Italy and France, while sales were lower than a year earlier in the UK, Spain, Switzerland, Sweden, Finland and Portugal.

In the fierce competition between the big six volume car makers in Europe, the Volkswagen group, which includes Audi and SEAT, which has led the European sales league for the last five years, gained further ground in the first quarter outpacing Fiat of Italy.

VW's estimated sales volume rose by 6.5 per cent, while Fiat, which includes Alfa Romeo, Lancia and Ferrari, suffered a marginal fall in sales of 0.5 per cent.

Fiat, which is traditionally strong in the first quarter, outsold Volkswagen in the first three months, but the West German car group has significantly narrowed the first quarter gap compared with a year ago, and is on track to maintain its leadership of the European car market this year.

The main loser in the first quarter was the Peugeot group of France, which includes Citroen, with an estimated fall of 3.1 per cent in sales volume, a sharp contrast to the strong 6.2 per cent increase achieved by Renault, which is enjoying much faster growth in the rapidly expanding French market.

The sustained product-led growth achieved by General Motors of the US (Opel/Vauxhall) in Europe has enabled it to catch Ford in Europe for the first time with both groups capturing an estimated 11.2 per cent of western European new car sales in the first quarter.

Ford's sales performance is faltering as it suffers widely contrasting fortunes in Europe. In the UK, its single most important European market, it has been hit by a 20 per cent drop in sales and a fall in its market share to 24 per cent from 27.7 per cent a year ago.

In Italy by contrast its sales were 127 per cent higher in the first quarter, helped by the success of the new generation Fiesta small car launched last spring, which has given it a viable competitor to the Fiat Uno, the biggest selling small car in Europe.

While Opel/Vauxhall sales were marginally behind Ford in the first quarter, the GM group in Europe, which acquired a 50 per cent stake and management control of Saab of Sweden late last year, outsold the Ford group, which now includes Jaguar of the UK. (Saab and Jaguar are excluded from the GM and Ford figures in the table).

WEST EUROPEAN NEW CAR REGISTRATIONS
January-March 1990

	Volume (Units)	Volume Change(%)	Share (%) Jan-Mar 90	Share (%) Jan-Mar 89
TOTAL MARKET	3,694,000	+1.8	100.0	100.0
MANUFACTURERS:				
Fiat (incl. Lancia, Alfa Romeo & Ferrari)	566,000	−0.5	15.3	15.7
Volkswagen (incl. Audi and SEAT)	542,000	+6.5	14.7	14.0
Peugeot (including Citroen)	485,000	−3.1	13.1	13.8
Ford	415,000	+1.0	11.2	11.3
General Motors (Opel, Vauxhall & US)	413,000	+4.3	11.2	10.9
Renault	393,000	+6.2	10.6	10.2
Mercedes-Benz	117,000	−1.1	3.2	3.2
Rover	110,000	−1.5	3.0	3.1
BMW	101,000	−3.3	2.7	2.9
Nissan	94,000	−8.2	2.5	2.8
Toyota	86,000	+1.4	2.3	2.3
Volvo	70,000	−6.7	1.9	2.0
Total Japanese	380,000	+2.2	10.2	10.2
MARKETS:				
West Germany	742,000	+4.9	20.1	19.5
Italy	713,000	+5.6	19.3	18.6
France	649,000	+10.8	17.6	16.1
United Kingdom	583,000	−7.7	15.8	17.4
Spain	262,000	−10.7	7.1	6.1

Source: Industry estimates

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LITHUANIAN BLOCKADE

Prosperity under Moscow's aegis – at the price of intimate linkage

Under Gorbachev, the Lithuanian economy has grown more than any other republic, but so has its dependence, writes Michael Kaser

THE Lithuanian economy under Soviet rule, and in particular during Mr Mikhail Gorbachev's tenure of the party leadership, has been remarkably successful. Its gross national product per capita in 1989 was some $6,110 – which was 9 per cent above the Soviet average and better than its Polish neighbour.

Predominantly agrarian during inter-war dependence, it gained its capital city, Vilnius, and a substantial industrial base under the aegis of Moscow. The price of course was intimate linkage with the Soviet economy.

Growth in the five years of perestroika has been more rapid than in any other Soviet republic. The 1989 index of net material product (the official Soviet aggregate which excludes many of the services counted in gross domestic product) was 26 per cent higher than in 1985 (compared, incidentally, with a target increment of 16 per cent in the republican breakdown of the Five-year Plan to 1990), whereas the index for the Soviet Union as a whole was 11 per cent.

Because industrial expansion has been both recent and rapid, its capital stock is more modern by Soviet standards and is more efficiently used

Because industrial expansion has been both recent and rapid, its capital stock is more modern by Soviet standards and is more efficiently used. This is evident both from the 1989 increment in industrial output per worker (at 5.9 per cent the second-highest Soviet republic and comparing with 3.1 per cent as a whole) and from better incremental capital-to-output ratios.

Lithuanian dependence on outside sources can be assessed from a few key aggregates. With a net material product in 1988 of 9.3bn domestic roubles, exports of Rbs5.9bn fell short of imports of Rbs7.5bn by Rbs1.5. In other words its import deficit with the Soviet Union and with the rest of the world was 16 per cent of material production. Almost exactly half the deficit was with the Soviet Union and the other half in foreign trade. Calculated in foreign exchange roubles and in world market prices the 1988 import deficit amounted to Rbs229m, or £216m at that year's official exchange rate. This is a modest sum if Scandinavian countries were willing to cover Lithuanian external needs.

But it is the links to the Soviet Union that are difficult to replace. Oil and gas showed a deficit of Rbs563m in 1988, Rbs538m for metals, Rbs467m for chemicals and Rbs624m for equipment.

Recent figures in volume terms are not to hand but in 1985 Lithuania had a net intake from the rest of the Soviet Union of 33.7m tonnes of primary energy in terms of coal equivalent. Its sole domestic production is the nuclear power at Ignalino (two reactors of the Chernobyl type of 1500MW each, commissioned in 1983 and 1986 but thereafter not increased as intended, because of public protest) and a hydroelectric station at Kaichiadoris of 1600MW.

A little peat is extracted but domestic heating is principally coal and gas – Lithuania has total energy consumption of 19.1m tonnes of coal equivalent. Only 1.9m is used for petrochemicals, at the huge complex of Maziekiai: cessation of that production would not therefore release a great deal for use as fuel.

Import of oil through the one port of Klaipeda is limited because it is not equipped for bulk liquids (Soviet oil is exported through the Latvian port of Ventspils to the north) and gas can only come in through the pipeline from Minsk. Supplies of gas to the Kaliningrad region (the northern part of former East Prussia) have to pass through Vilnius, which may preclude a complete cut-off. Switching Lithuania out of the national electricity grid is far from straightforward, not only technically, but because the republic exports 2.2 times as many KWh as it receives.

Lithuania's main industries depend on Soviet supplies: its plastics factories receive 53 per cent of requirements from other parts of the Soviet Union and the list of equipment it obtains is almost endless – lorries, agricultural and construction machinery, power plant. Its agriculture requires mineral fertilizer from Soviet plants but in return it runs a substantial export surplus of foodstuffs. Meat and meat products, milk and milk products and fish are only partially offset by fruit and vegetables, sugar and vegetable oils.

Lithuania's main industries depend on Soviet supplies: its plastics factories receive 53 per cent of requirements from other parts of the Soviet Union

Those foodstuffs, together with textiles and electronic products would form a saleable list for western exports. But stopping the delivery of food products to neighbouring zones of Belorussia, the Russian Federation (as far as Leningrad) would dislocate supplies in an already straitened retail market. Lithuanian agriculture is more important to these areas than its industrial goods – 52 per cent of Lithuanian national income comes from farming.

The Soviet authorities have made a point of demonstrating that, because energy is seriously underpriced in the home market, Lithuania would have to pay much more if it purchased the same quantities of oil and gas at world prices. A recently published estimate by Moscow economists claims that there would be a deficit (calculating on 1988 deliveries) of 3,687m foreign-exchange roubles (just on £3.5bn) if all Lithuanian supplies had to be foreign traded. In Western economy terms, this is still not a vast figure, but it is a measure of Lithuanian dependence that it cannot meet such sums off its own bat.

Michael Kaser is Director of the Institute of Russian, Soviet and East European Studies at Oxford University and a Professorial Fellow of St Antony's College.

Conflicting constraints leave little room for Soviet leadership to manoeuvre

By John Lloyd in Moscow

THE SOVIET leadership has sought to manoeuvre between a series of tight constraints which surround its actions over the issue of Lithuania independence.

These are:

- The need to safeguard the integrity of the union at a time of rising nationalist feeling;
- The desirability of reassuring Western leaderships that Lithuania will not disrupt either the democratisation process, the forthcoming US/USSR summit, or the Helsinki process;
- The imperative of so targeting sanctions on Lithuania that they will have a minimal disruptive effect on the Soviet economy as a whole.

The various and differing interests which surround each of these aims in large part accounts for the contradictions in the Soviet response.

In the first place, Mr Mikhail Gorbachev, the Soviet President, has insisted that all nationalist sentiments be contained within the law: and the law now includes a recently adopted bill on secession, which specifies the holding of a referendum and a five year "divorce" process. Any attempt to short-circuit this process, he and other officials have made clear, cannot be tolerated because of the example it would give to other republics.

So far, this line has not worked. The Lithuanians remain adamant that they will not rescind their declaration of independence made on March 11, and are now taking the economic blockade as a sign that the USSR treats the republic as a separate country.

This continued defiance makes the second objective harder: that of reassuring world opinion that the Soviet authorities remain committed to peaceful persuasion.

In seeking to do so, the Government has come close to mendacity: Mr Eduard Shevardnadze, the Foreign Minister, assured Mr Douglas Hurd, the British Foreign Secretary, that economic sanctions would not be applied two days before they were: he later told Mr Gianni De Michaelis, the Italian Foreign Minister, that he thought of Lithuania as of an east European state – that is, presumably, independent.

This soft line runs in parallel with another which blasts the "propaganda campaign" against the Soviet Union mounted by public figures and the media in the West, who are calling for tougher action against the USSR. This line in turn is kept sharply distinct from another, which distinguishes the actions of governments, especially that of the US, from such "propaganda": Mr Perfilyev was at great pains to insist that the communications with the US administration were in good working order.

It may be that the Soviet leadership has concluded that it still has some room with the West for manoeuvre, and it may be right. European Community parliamentarians in Moscow to meet senior officials thought their governments would confine themselves to rhetoric up to the point of military action.

The final aim – of targeting sanctions only on Lithuania – is probably impossible to achieve. Soviet economists have already pointed out that the republic is a monopoly supplier of some high-tech components, and a large supplier of electronic consumer goods, food and cement.

Its oil refinery supplies Latvia, Estonia and the Russian Baltic strip round Kaliningrad: the larger enterprises, which would be hardest hit, are precisely those where most of the non-Lithuanians (mainly Russian) work. A tightening of the screw on one Baltic republic which affected the two others could only further inflame anti-Soviet feeling.

The Soviet economy is an integrated one: the Soviet authorities have made this point often enough against the nationalists, and are now realising it works two ways.

The core of the matter seems to be this: how to find some way of starting talks, as in Latvia and Estonia, while saving face.

The latest Lithuanian offer of a freeze on all further legislation may be extendable: the Soviet side may be willing to consider the removal of bases. Both sides have too much to lose to stay impaled on intransigent positions: but they may nevertheless remain on them, for lack of a good wheeze to get them off.

Norway's guests are kept at arm's length

By Robert Taylor and Karen Fossli in Oslo

"PURE COINCIDENCE" is how Lithuania's foreign minister, Mr Algirdas Soudargas, described the timing of the Lithuanian Government's visit to Norway – Europe's second biggest oil producer – and the onset of the Soviet oil and gas blockade of his country.

But Mrs Kazimiera Prunskiene, the republic's Prime Minister, made clear she hoped her talks in Norway would lead to an agreement to provide oil supplies for Lithuania.

Yet from the moment she arrived at Oslo airport on Wednesday, Norway's centre-right coalition government, the parties of which are hosting her trip, has sought to keep her at arm's length. "The parties in the government invited the Lithuanians here and now it seems they don't want even to touch them," one observer said.

The Lithuanian delegation had contacted neither the Norwegian Government nor any of the country's oil companies by late yesterday. Further, Statoil, the Norwegian state oil company, believes Mrs Prunskiene is being "unrealistic" in seeking oil supplies because of problems involved in transporting oil from the Lithuanian port of Klaipeda, some 300 miles from the country's one refinery.

Statoil cites two problems. The pipeline from the port to the refinery is designed to carry petrochemical products, not crude oil, and the port facilities are too small to cope with Norwegian tankers. Mrs Prunskiene's visit to Norway is turning into an embarrassment for Mr Jan Syse, the country's prime minister. Some observers believe his handling of the affair shows a lack of sureness in dealing with a sensitive international issue.

Norwegian ministers persist in saying the Lithuanians are guests of the parties which comprise the government, rather than of the government itself - a distinction proving somewhat confusing to the outside world, notably the Soviet Union.

Jan P.Syse, Prime Minister of Norway, welcomes Lithuanian Premier Kazimiera Prunskiene yesterday

The Lithuanians are the sponsored guests of an umbrella organisation called Give Democracy A Chance In The East, a group set up in February by three constituent parties of the present Norwegian government - the Conservatives, Christian People's Party, and the Centre Party.

The movement's aim is to offer financial and other help to emerging eastern European democracies. It offered backing to Hungary's Democratic Forum in the recent elections and to the Christian People's Party in Slovenia's recent contest. Right-wing parties in Czechoslovakia and Romania are also being helped by the group, which has so far raised £100,000 for its project. Its invitation to the Lithuanians was its first contact with Soviet organisations.

It springs from the Norwegian Conservatives' seeking to strengthen their international activities. Some observers believe it is intended to boost the falling popularity of the centre-right coalition, in power since last October.

The invitation was sent on April 5, but unfortunately for Mr Syse and his centre-right colleagues, the Lithuanian crisis has escalated rapidly and Norway suddenly finds itself uncomfortably placed.

HK says Chinese support for new airport is vital

By John Elliott in Hong Kong

HONG KONG'S plans to build an international airport as part of an ambitous 15-year HK$127bn (£10bn) infrastructure construction programme could be put at risk if the colony's government fails to persuade China officially to give its support.

This was tacitly admitted yesterday by Sir Piers Jacobs, Hong Kong's financial secretary. He said he was "entering a dialogue" with China because its support was "necessary" to attract international private sector financial and other participation in the project.

The airport is urgently needed to replace the existing overcrowded Kai Tak airport which will reach saturation point within four to five years. It is estimated to cost HK$35bn, plus HK$20bn-HK40bn for associated transport links and developments, and is scheduled to open on reclaimed land in 1997 just a few months before Hong Kong reverts to Chinese sovereignty.

But Peking's leaders including Mr Li Peng, the Prime Minister, and Mr Jiang Zemin, Communist Pary Secretary, have questioned the cost and financial viability of the projects and have called for detailed information.

The Chinese leaders are also believed to be annoyed that the

Jacobs: dialogue with Peking

HK$127bn projects were announced last October as part of a package of controversial measures designed to boost confidence after June's Tiananmen square crisis.

"We need support from China in that we need them to say they are happy with the project," said Sir Piers. "My talks have been with the New China News Agency (Peking's de facto local embassy) but I expect them to go beyond that."

He was looking for a "firm decision" from Peking and could not see why support should be witheld "when they see the whole package." There was no question of asking Peking for financial backing.

In an apparent attempt to maintain substantial international business interest, Sir Piers also claimed that "at a pinch" Hong Kong could build the airport from its fiscal reserves which total HK$71bn.

But he partially contradicted this when he also revealed that he had promised China that Hong Kong would be handed over in 1997 "with a viable international airport and full coffers." He said this meant "substantial reserves and a balanced budget."

The government is now awarding the first of approaching 20 consultancy contracts to international companies and has also invited international groups to express interest in building and operating a HK$6.5bn associated suspension bridge or tunnel.

Sir Piers said that studies showed that not building the airport would cost Hong Kong HK$100bn by 2010 in lost business and economic growth.

S African deaths may halt talks with ANC

By Patti Waldmeir in Johannesburg

SOUTH African police shot dead four black youths and wounded about 20 during a demonstration in a black township yesterday, in an incident that could jeopardise next month's negotiations between Pretoria and the African National Congress.

Black activists in Rammulotsi township about 200km south of Johannesburg said four boys aged between 13 and 16 were killed when a peaceful march was stopped by a van load of policemen who opened fire on the crowd.

Police said the youths refused two requests to disperse and then began hurling stones at the officers.

Mr Nelson Mandela, deputy president of the ANC, last week warned that he would call off negotiations due to begin on May 2 unless the government prevented incidents such as yesterday's shooting.

In Cape Town Mr F W De Klerk yesterday reiterated his government's commitment to abolish apartheid legislation, but made clear the process of removing discriminatory laws could be lengthy.

In a cautious speech to a joint sitting of parliament in Cape Town Mr De Klerk outlined his government's plans for replacing the so called four pillars of apartheid - laws governing segregation of public amenities, residential segregation, ownership of land and race classification.

He reiterated a commitment given last year to abolish the so called Separate Amenities Act during the current session. But legislative proposals to replace the Group Areas Act, which governs residential segregation, would not be introduced before next year at the earliest.

Action on the Land Acts, which legislate ownership of land, would also not be immediate, he implied, noting that the acts would be on the agenda for talks with the ANC. He hinted that race classification legislation might be the last to be abolished.

Mr De Klerk has long made clear the process of abolishing apartheid legislation would involve lengthy negotiation with black leaders.

Time is up for Taiwan's 'old thieves'

Peter Wickenden explains why old nationalists are being forced out

TIME is up for the scores of gerontocrats who habitually snooze their way through debates in Taiwan's parliament if they are in a fit state to attend at all.

It appears that the ruling Kuomintang (nationalist) party now means business in removing the 125 KMT members of parliament who have been frozen in office for the last four decades without once facing re-election.

Dubbed "old thieves" by the opposition Democratic Progressive Party, their attempts to prove that their forced removal is illegal are likely to prove futile.

Application forms for retirement are to be sent to all of them, and if the oldest group does not fill them in and post them within six months, KMT officials will take the liberty of doing it for them.

Several said they would hang on to the bitter end despite heavy public opposition but most have indicated their willingness to step down.

Those affected by the retirement plan announced on Wednesday range in age from the 70 years of the speaker Liang Su-jung to the 92 years of Chen She-wo, who "represents" the people of Peking.

Elected on mainland China in 1948 just before the nationalist government lost a civil war to the communists, the old guard were kept in office after the regime moved to Taiwan.

The purpose of this was to justify the Taipei government's claim to be the sole legitimate Chinese government, but in recent years they have become a political millstone round the KMT's neck.

In response to public dissatisfaction with Taiwan's international diplomatic isolation and lack of local democracy, the KMT originally planned a complete rujuvenation of parliament by successive elections, ending up in 1992 with a small parliament of 150 elected members.

But the KMT had not expected public patience with the old guard to run out as suddenly as it did in March. The outcry at attempts by aged members of the electoral college to increase their power over the legislature and quadruple their pay put the survival of the KMT regime itself at stake for the first time since 1949.

Some analysts say that frustration with the rate of reform was heightened by the successive fall of socialist governments in Eastern Europe.

Upon his recent unnopposed re-election as president Mr Lee Teng-hui set the wheels in motion for the removal of those octogenarians who had voted him into office. His own position may well become symbolic if the island adopts a traditional parliamentary system of government after an emergency national conference to be held in June.

Even the DPP leaders now say they do not doubt the KMT's sincerity in bringing about radical reform, but members of both parties are still calling for the law to be changed to make retirement of the old guard officially compulsory.

In an attempt to show gratitude and respect, the KMT will let the old-timers continue haunting the legislative building by giving them free use of its facilities. They are also to be made "advisors" to the party.

Of parliament's 269 members, 139 were elected in mainland China in 1948, or appointed to replace those who died. Some 101 have been elected in Taiwan, and another 29 were appointed by the president to represent overseas Chinese communities.

Proposals are also being drawn up for the retirement of the 600-odd aging nationalists in the national assembly. But they will not be forced to retire just yet for the assembly itself may have to meet one more time after the emergency national conference to vote for its own abolition and the direct election of the president.

KING BIRENDRA SWEARS IN PREMIER

Nepal ends absolute monarchy

By K K Sharma in New Delhi

KING Birendra of Nepal yesterday administered the oath of office as Prime Minister to Mr Krishana Prasad Bhattarai of the Nepali Congress, ending 30 years of absolute rule by the monarchy in the Himalayan kingdom.

It was the culmination of a long struggle for restoration of democratic rights since 1960 when the country's political parties were banned and a "partyless form of democracy" introduced. The struggle entered its final and most violent phase in February since when more than 200 people lost their lives in attacks by the army and police during.

Mr Bhattarai heads an 11-member coalition which includes members of the Nepali Congress, the Communist party, two nominees of the king and two non-party public figures. The Nepali Congress and the communists worked together in the struggle for democracy and it now remains to be seen how they function in the same cabinet.

The communists are part of the government for the first time in Nepal.

Prasad Bhatarai: new era

The principal aim of the new cabinet will be to make constitutional changes to initiate democratic reforms and rights. Efforts are to be made to hold free elections within a year.

The King's nominees will obviously attempt to protect his rights but there are indications that his powers will be severely curtailed. The Nepali Congress has indicated he is soon to be made a constitutional monarch.

Mr Bhattarai has retained the portfolios of defence and foreign affairs himself. One of his main tasks will be to finalise early agreements with India on trade and transit since the lack of these for more than a year has seriously disrupted the Nepal economy.

Talks on the agreements, including revision of a 1950 treaty in which a special relationship was agreed between the two countries, were held recently. Finalisation of the agreements was held up by the political upheaval in Nepal.

The often violent movement for restoration of democracy had mass support and King Birendra was compelled to concede the formation of the all-party interim government following attempts to storm the royal palace a fortnight ago.

That he gave in has enabled him to retain his throne. Inclusion of two of his nominees in the cabinet suggests the political parties wish to avoid a confrontation with the King who is worshiped by his Hindu subjects as the reincarnation of the god Vishnu.

Colombo lifts emergency laws

THE government in Sri Lanka yesterday announced it was removing the ban on political rallies and repealing other emergency laws in an effort to restore normalcy after years of violence, reports Mervyn de Silva from Colombo.

The move is also a response to mounting criticism from the country's main opposition parties and from international and local human rights groups.

The Sri Lankan army and police said they were certain that the security situation in the (Sinhalese) south would continue to improve. In the Tamil north, the ceasefire between the government and the Tamil Tigers has not not been seriously breached.

NZ inflation falls

New Zealand's underlying annual inflation rate was between 4.4 per cent and 4.6 per cent at the end of March, reports Dai Hayward from Wellington. Mr David Caygill, Finance Minister, said the fall showed Labour's policies were producing results and should help cut interest rates, running at around 14 per cent.

Moscow seeks help on Kuriles

By Robert Thomson in Tokyo

THE Soviet Union will today present Japan with a plan for the joint development of the disputed Southern Kurile islands in an attempt to improve relations between the two countries.

Mr Vladimir Petrovsky, the deputy Soviet foreign minister, said yesterday he would reveal plans for the ecological and economic development of the islands, referred to in Japan as the Northern Territories, which Tokyo says were illegally occupied in the last days of Second World War.

"We are a little bit disappointed with the state of relations with Japan. We have full diplomatic relations, but economic relations are lagging behind. We suggest as a starting point the establishment of joint ventures in areas of mutual concern," Mr Petrovsky said.

He said was hopeful Tokyo would be interested, although participation in such projects would amount to recognition of the Soviet presence on the four disputed islands.

Japan has refused to sign a peace treaty with the Soviet Union until the islands are returned and has hinted that a return could herald a flood of Japanese investment in the Soviet Far East. Mr Petrovsky said yesterday that joint ventures now could lead to broader agreement later on a peace treaty.

He said Moscow intends to play a greater role in Asia, and would like to establish improved "multilateral" ties among the disparate countries in the region, and, in particular, to develop "preventative diplomacy."

As for the development of the far eastern port of Vladivostock as an economic centre, Mr Petrovsky said the government was still pushing Mr Mikhail Gorbachev's plans to open the city, now the site of an important naval base.

"I cannot tell you when we will open Vladivostock, but if President Gorbachev gives his word, it will become a reality. We have to remove a lot of the old structures and deal with a lot of agencies that have interests in the city," he said.

Ottawa's Gatt plan depends on success of Uruguay Round

By Peter Montagnon in Puerto Vallarta, Mexico

CANADA'S PLAN to reform the General Agreement on Tariffs and Trade depends on a successful outcome to the Uruguay Round of multilateral trade negotiations and cannot substitute for a failure.

This point will be stressed in Puerto Vallarta, Mexico, today by Mr John Crosbie, Canada's Trade Minister, when he presents the plan to fellow ministers here.

The plan, which assumes that a successful Uruguay Round would place extra responsibility on the Gatt, calls for the Geneva-based body to be converted into a fully fledged world trade organisation.

Canadian officials say a central element involves the creation of a more consistent and effective dispute settlement system, replacing the variety of arrangements that currently span the Gatt and its subsidiary codes of trade practice.

The new organisation would also be responsible for making the world's trading system more transparent, with a stepped-up scheme for surveillance of individual country policies.

This would help enhance its status relative to that of the International Monetary Fund and the World Bank.

Though the plan has met an interested response from many of the participants at the trade ministers' meeting here, most feel that detailed discussion should wait until after the Uruguay Round is completed.

Canadian officials acknowledge that discussions of the proposal should not distract from the substance of the Uruguay Round negotiations.

But they believe that thought should be given to the effect on the trading system of the round's wide-ranging agenda.

The proposal on the dispute settlement would set a time limit of 18 months for a decision to be reached.

Thus, the delays both in establishing panels and in getting their verdicts adopted - problems which have plagued the present system - would be avoided.

The procedure would incorporate a right of appeal against a panel decision, though the result of such appeals would be binding.

Arbitration arrangements, also binding, would be put in place to deal with cases where two countries disagreed about the amount of compensation an injured party could claim as a result of its right being violated.

Canadian officials believe cases involving compensation would be rare.

The primary objective of the dispute settlement process would still be to persuade an offending party to abandon the practice which had been found to be illegal.

The dispute settlement system would be largely unified, covering all areas of the new organisation's responsibility from trade in goods to services and intellectual property right protection.

This would in theory allow what are called cross-sanctions, where countries who have suffered injury, say, in the services area could exact compensation by withdrawing privileges from the offending party's trade in goods.

However, the Canadian officials said cross-sanctions are controversial.

Although they exist in national laws, notably the US Trade Act, there would be strong opposition from developing countries to the idea that they might be denied access to the textile markets of industrial countries if they refuse to open their own markets to financial services.

Thus, the new dispute settlement system could not be fully unified and would have to embody an element of flexibility.

This would be one area for further discussion, the officials said.

Another would be the question of how far the new organisation should aim to attract a universal membership.

This universal membership might include even countries with different economic systems, such as the Soviet Union.

Though there are attractions in having universal membership, there are also risks because it could entail watering down the basic rules.

Hills avoids Tokyo clash on amorphous metal imports

MRS CARLA HILLS, US Trade Representative, has sidestepped a potentially troubling trade case over imports of amorphous metals, while getting Tokyo to agree to immediate talks, Nancy Dunne reports from Washington.

With the US under fire from its trading partners for unilateral actions, Mrs Hills convinced a New Jersey company, Allied-Signal, to withhold a petition against Japan. Instead, she promised to get a settlement within 150 days or let the company refile its complaint with no time lost for the usual investigation.

Allied Signal, which filed the case in March, complaining it had been excluded from the Japanese market for electronic transformers using amorphous metal alloys, said it had taken 11 years to get a patent for its product in Japan, and in that time, Japanese companies had duplicated its technology.

It charged the government with organising and funding an amorphous metals group under the Japan Research and Development Corporation to spur development of a competitive product. Japanese electric utilities, it claimed, were urged not to buy transformers containing Allied-Signal's product.

The Trade Representative's Office said the talks were "a means to find solutions, and do not imply any judgment by either government on the facts of the matter."

Turkey approves two car ventures

TURKEY'S cabinet has approved two investment packages involving foreign car makers, Mr Mehmet Yazar, government spokesman, said yesterday, Jim Bodgener reports from Ankara. The projects, by Toyota and Peugeot/Citroen, have combined investment costs of $650m (£382m).

Toyota's local partner eventually to assemble 100,000 commercial vehicles a year is Haci Omer Sabanci Holding. Japan's Mitsui may take a 10 per cent stake. Peugeot/Citroen's partners include Polly Peck International of the UK, owned by Mr Asil Nadir, a Turkish-Cypriot entrepreneur, and Cukurova Holding.

Canada upsets Cairns Group applecart

Proposal for tighter import controls angers fellow-exporters, writes **Bernard Simon**

A RIFT HAS opened in the Cairns Group of agriculture exporting nations over a Canadian proposal to tighten General Agreement on Tariffs and Trade rules which provide for import controls to reinforce food supply management systems.

The proposal, tabled in Geneva last month, has highlighted Canada's delicate position as the only big food importer in the Cairns group, whose 13 other members include Australia, New Zealand, Argentina and Thailand.

Although Canada, as one of the world's leading grain exporters, enthusiastically subscribed to the group's original goal of halting the grain subsidy war between the US and the EC, its position has become increasingly uncomfortable, since the group has evolved into a "third force" to protect food-exporting countries' wider interests in the Uruguay Round of multilateral trade negotiations. The chief aim of the group, whose members are all substantial food exporters, is to liberalise world trade in agriculture.

An official of one member country described Canada's position on supply management as "unfortunate", especially since the group has tried to accommodate Canadian concerns in its own proposal that countries be allowed to maintain internal support measures in accordance with any new Gatt rules.

The Canadian position on supply management – through production quotas and marketing board control over prices – is a response to much broader commercial and political pressures on the government of Mr Brian Mulroney, the Prime Minister. These include the US-Canada free trade agreement and concerns about the constitutional future

The proposal has highlighted Canada's delicate position as the only big food importer in the group

of Quebec, which is home to some of the most powerful supply-managed producers, notably the dairy industry.

Other Cairns members "recognise the political reality within Canada", the official said, adding that "our over-riding commitment is to get some sanity back into agricultural trade".

The Canadian proposal calls for a more disciplined approach to Article XI of the Gatt, which allows countries to control imports in support of domestic farm production or marketing control programmes.

In particular, Ottawa has suggested that import quotas should be permitted only when uncontrolled imports threaten to undermine curbs on production and marketing of fresh produce; and when a "reasonable and predictable balance" is maintained between countries applying supply controls, and farm-exporting nations.

Production levels would have to be set in advance, with stiff penalties for over-production and severe limits on exports. A senior Canadian official said: "We're in a unique position in the Cairns Group. It's fairly easy to be facile about free trade if you're not a major importer."

Besides sugar, horticultural items and some dairy products, Canada imports large quantities of processed foodstuffs, especially from the US.

The Canadians, who recently had their knuckles rapped by a Gatt panel for maintaining import controls on yoghurt and ice cream, insist that the new proposal would require significant sacrifice on their part, including a readiness to allow imports of some hitherto-banned items, such as butter.

Among Ottawa's chief concerns is the provision in the free trade agreement eliminating all customs duties between the US and Canada by early 1998.

Without some other form of protection, Canadian food processors, whose raw materials come from high-cost domestic producers sheltered by farm-marketing boards, are especially vulnerable to competition from lower-cost US processors as tariff barriers are dismantled.

Canadian food processors have been among the most vociferous opponents of the free trade pact so long as supply-management systems keep prices high on their domestic inputs.

US steps up Asia aircraft drive

By Paul Betts in Toulouse

THE US IS intensifying its efforts to win back market share in the Asian and Far East aerospace export market lost to European competition, European aviation officials claim.

This is likely to have a bearing on the current round of negotiations between the US and the European Community on the civil aircraft code of the General Agreement on Tariffs and Trade (Gatt).

EC and US trade officials are due to hold further talks in Washington at the end of this month to try to reach a compromise on the contentious issue of civil aircraft subsidies.

European Aerospace officials claim there have been signs of a thaw in the entrenched position of the two sides in the Gatt aviation row, and that the EC and the US have been moving nearer compromise on interpreting the Gatt code's most controversial aspects.

The debate has centred on US charges that the European Airbus aircraft manufacturing consortium has benefited from unfair government subsidies, while Europeans have claimed the US has indirectly subsidised US aerospace manufacturers including Boeing and McDonnell-Douglas.

The two most controversial aspects of the Gatt code are Article 4 on civil aircraft subsidies and Article 6 on government inducements on civil aircraft exports.

Both European and US aerospace companies have recently been saying they felt the time was now right for reaching a better understanding over the Gatt code. The improved business outlook for civil aircraft manufacturers has also taken some of the sting out of the long-running trade battle between the US and the EC over civil aircraft sales.

But in recent months, a trade battle has been heating up in the Far East and Asia, which is regarded as one of the most promising markets for future aircraft sales. Airbus has made some significant inroads in these markets during the past five years.

Airbus is believed to be furious at losing out recently on a large Japanese order for wide-body aircraft after Japan Airlines opted at the last minute for McDonnell-Douglas MD-11 trijets. European officials claim Japan came under pressure from the US to choose the MD-11.

At the same time, Airbus is worried the US is trying to use the controversy in India following the crash of an Airbus A-320 last February, to press the Indian authorities to acquire Boeing 757 aircraft instead of A-320s.

Boeing was originally poised to win a big order from Indian Airlines in 1985 for Boeing 757 aircraft, but Airbus clinched the deal even though the US company had signed a memorandum of understanding.

After the 1985 Indian Airlines deal, the Gatt civil aircraft code turned into a burning issue. Airbus is also worried by US efforts to secure the support of Japan on US civil aircraft programmes such as the Boeing 767 and the new Boeing 767X programme.

Airbus claims the US is seeking Japanese commitments to buy American products to redress the US-Japan trade balance. It also claims the US is taking indirect advantage of Japanese government support for the Japanese aerospace industry through the participation of Japanese companies in US civil aircraft programmes.

Boeing, for its part, has continued to criticise European government subsidies to Airbus, and especially the West German Government's agreement to offer Daimler-Benz currency guarantees in its acquisition of the MBB aerospace group.

US officials 'satisfied' with Korea trade accords

US TRADE officials yesterday expressed satisfaction on the implementation of trade agreements with South Korea, John Ridding reports from Seoul. But they said a final decision on whether punitive sanctions would be taken, under the US Trade Act had still to be made.

The US will deliver its decision by April 30.

Speaking after two days of talks, US officials said they were "generally very pleased" with the progress of various bilateral agreements. The talks covered a broad range of issues including agricultural market access and the opening of Korea's services markets.

The US side said they expected an agreement ending the two countries' dispute over the liberalisation of Korea's beef market would be finalised within a week.

Areas of disagreement included the Korean cigarette market, with South Korea alleging improper sales activities by US tobacco companies.

On protection of intellectual property rights, the US said much progress had been made, but "there is still a long way to go, particularly in the areas of counterfeit and enforcement".

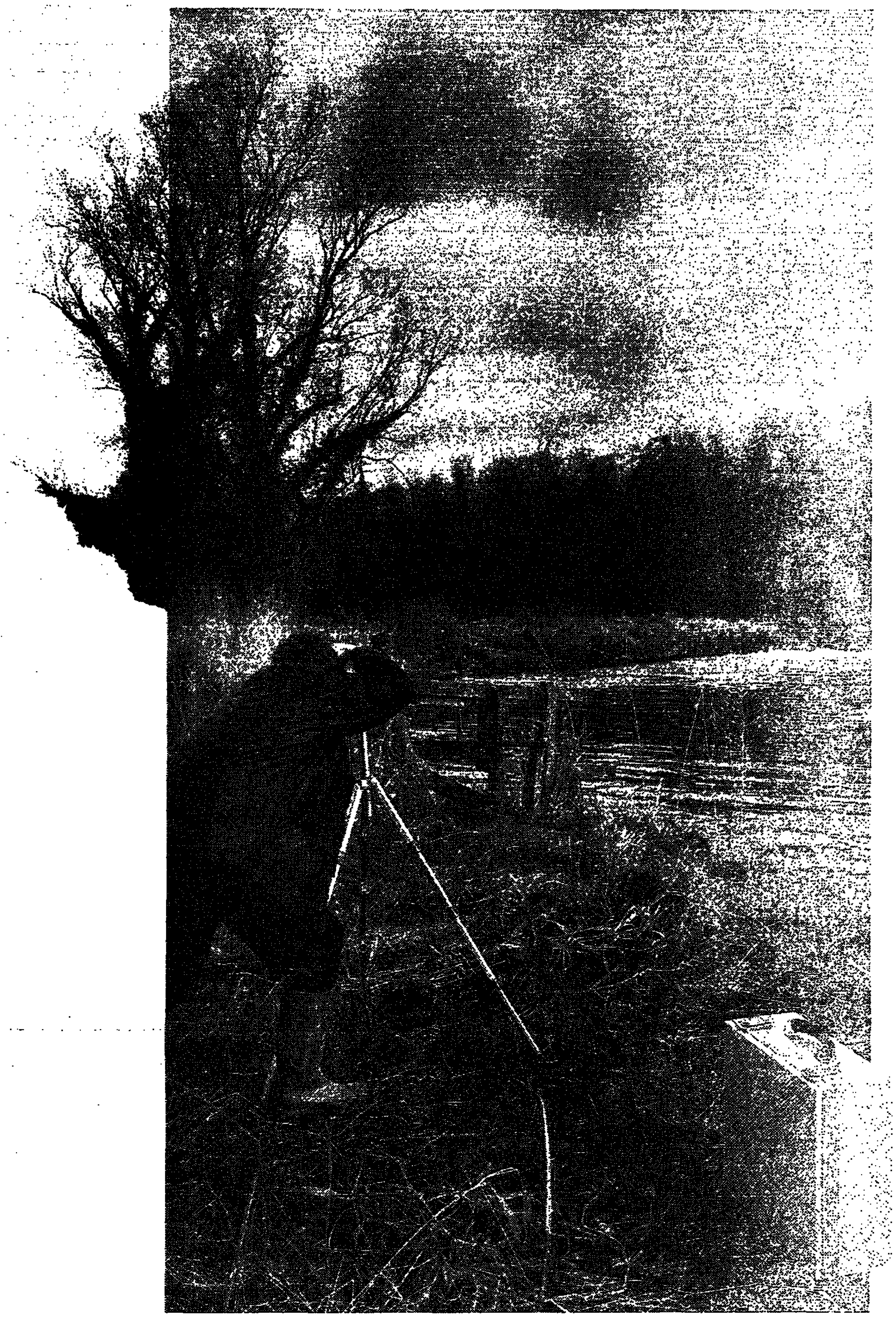
Trade tensions between the two sides have eased considerably over the last year because of a sharp fall in South Korea's current account surplus with the US and the conclusion of several trade agreements.

Japanese in NZ venture

NISSHO Iwai Corporation, the Japanese industrial group, Austpac, a small Australian gold exploration company, and Buller Minerals, a New Zealand mineral company, are going ahead with joint venture plans for a NZ$130m (£45m) titanium slag plant at Westport, on the west coast of the South Island, Dai Hayward writes from Wellington.

Output from the proposed plant, which will produce 100,000 tonnes a year, will be exported to Japan. It will also produce 60,000 tonnes of pig iron a year.

Construction costs will be met by Nissho, which will hold 70 per cent of the joint venture. Austpac will have 20 per cent and Buller Minerals 10 per cent.



Bill Coleman believes the environment is a sound investment.

Bill Coleman is not an ecologist, he's a banker.

He looks at the world's growing preoccupation with environmental issues from a different perspecitve. One which has begun to influence the advice he gives investment clients at James Capel & Co in London.

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"Nature's energy resources are undervalued assets in more senses than one."

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Recycling looks bad on paper

Louise Kehoe discovers a paper glut in California

This week's celebration of Earth Day has focused international attention on environmental issues and in particular upon the need to reduce the huge volume of garbage generated each year by ordinary households and businesses.

In California, the birthplace of the Earth Day movement, recycling of paper, which represents close to 40 per cent of domestic waste material is, however, becoming an increasingly difficult challenge.

Over the past few years paper recycling has become as much a part of the California lifestyle as sunscreen and health food. California leads the US in the collection of waste paper. Recycling bins where newspapers, magazines, cardboard boxes and other paper can be dumped are to be found throughout the state on street corners and in parking lots. These bins are regularly emptied by boy scout or similar groups who use the paper collections to raise funds.

Saving trees and protecting the environment are not the only motives behind the recycling. In a state where garbage collection is typically not a tax-supported service and householders pay according to the volume of rubbish that they generate, the paper bins also represent a way to cut household bills.

Since the passage of state legislation, late last year, which requires cities and counties to recycle 25 per cent of their waste by 1995 and 50 per cent by 2000, recycling has also become virtually mandatory.

The legislation was prompted by the growing problem of waste disposal. Californians generate some 40m tons of garbage a year and more than 90 per cent of the solid waste is sent to landfills or incinerators. The state is running out of landfill space, and the air pollution caused by incinerators is of growing concern.

In efforts to increase recycling, many communities have recently introduced curb-side collection services. Each household is issued with bins (made of recycled plastic) in which to place glass, aluminium and paper waste, which represents by far the highest volume of recycled material.

The willingness of Californians to recycle their old newspapers has, however, highlighted a growing problem throughout the US. There is now a huge glut of used newsprint in a shrinking market.

A ton of used newsprint that sold for about $100 a year ago now sells for about $5.

Some California recyclers are removing their newspaper bins from the streets and operators of the pick-up services are seeking higher fees to off*set the reduced value.*

Some communities have had to pay for the disposal of their "recycled" newspapers in out of state landfills. Others have managed to find a market for the paper outside the US.

In a measure designed to stimulate the domestic market for recycled paper, the state has passed legislation requiring California newspapers to use recycled newsprint for a quarter of their papers by 1991 and for half by 2000.

But California's strict rules on what constitutes "recycled" paper are making it difficult for anyone to comply with the new laws. Few US paper mills have the capacity to manufacture paper that meets the California standards.

Although many paper producers claim to use recycled materials, the vast majority use only the clean scraps from envelope manufacturers and other paper goods producers.

Among consumers who had fondly imagined that their recycling was contributing to the environmental effort, it has come as a bitter disappointment to learn that the US paper industry is not equipped to make use of its waste.

Environmental groups are however urging Californians to continue to recycle paper in the hope that alternative uses such as packaging materials and building materials will eventually expand to consume *the waste paper glut.*

US hostage reception prepared

THE US has sent a hostage reception team to West Germany in case a Lebanese group fulfils its promise to free an American hostage, but Washington still has no assurance that will happen, the White House said yesterday, Reuter reports from Air Force One.

Reporters with President George Bush, flying to a meeting with President François Mitterrand of France in Florida, were told that the State Department had sent the team to Wiesbaden, "where they have the medical facilities. We have statements of imminent release from Islamic Jihad and from Syria, but there's no way for us to know conclusively that it's going to happen."

The US has experienced a number of false alarms on hostage releases.

The pro-Iranian Islamic Jihad for the Liberation of Palestine (IJLP) said on Wednesday it would release one of three US academics as a goodwill gesture and in response to calls from Tehran. Eight Americans among 17 foreigners are held by various groups in Lebanon.

The White House also said Mr Edward Djerijian, US ambassador to Syria, has been sent to Damascus from a meeting in Bonn further to prepare for a possible handover of a hostage to Syria.

Washington to trim forces in Asia

THE Bush administration yesterday announced plans to withdraw up to 15,000 US troops from Asia within three years, and more later, thereby turning the main defensive role in South Korea over to Korean forces by the end of the century, Reuter reports from Washington.

However, Mr Paul Wolfowitz, US Under-secretary of Defence, said the troops would be cut cautiously to avoid sending "a false and dangerous signal", particularly to North Korea, of US withdrawal from Asia.

"North Korea remains one of the most reckless and dangerous actors on the international scene," he told the Senate Armed Services Committee.

The Under-secretary also told the committee that the USadministration planned to cut 7,000 troops from the 44,400 in South Korea over the next three years; 5,000 to 6,000 from the 50,000 in Japan; and 2,000 from the 14,800 in the Philippines.

This would trim up to 11 per cent from the 135,000 US troops in Asia – including 25,800 on ships – by the end of 1992, he said.

If dangers had not increased by 1995, more US troops would be cut by then and, after another reassessment, more would be cut by the end of the century, he said.

"In Korea, we anticipate that, by this time, the US forces will be clearly in a supporting role, with the South Korean military in a leading role on the peninsula," Mr Wolfowitz said.

Even so, the US would watch North Korea at each step, he went on, because Pyongyang was continuing to modernise its large military force and "we are also very concerned about North Korea's nuclear programme."

US officials have said North Korea appears to have a facility for separating plutonium from uranium, a step towards production of nuclear weapons.

Mr Wolfowitz also said uncertainty about succession to the ageing North Korean President Kim Il-sung "could lead to great instability, including the use of military force or terrorism."

He said the US personnel cuts in South Korea by the end of 1992 will include 5,000 ground troops and 2,000 air force people.

The 5,000 to 6,000 US troops coming leaving Japan will include troops from Okinawa as excess US facilities there are returned to Japan, he said.

However, a US aircraft-carrier as well as airlift and strike forces would remain in Japan in the next century, he said.

Mr Wolfowitz said the reduction of 2,000 US troops in the Philippines would not diminish the major US operations there, assuming current negotiations were to result in US bases remaining in the Philippines.

Output imperilled at Mexican Ford plant

By Richard Johns in Mexico City

PRODUCTION at Ford's motor assembly plant at Cuautitlán in Mexico looked set to grind to a halt again yesterday, following a shutdown of nearly five months at the beginning of this year.

Dissident workers said that the whole labour force would strike after the US-based transnational company's alleged refusal to re-hire 700 workers dismissed in January.

The confrontation between the Confederation of Mexican Workers (CTM), which is an *adjunct to the ruling Institu*tional Revolutionary Party, and a breakaway union faction at the Ford factory has been an embarrassment to the Mexican Government in its drive to attract foreign investment

Workers who have been taken back by Ford at Cuautitlán are also objecting to the hiring of new employees recruited by the CTM.

No immediate comment was available from Ford yesterday. The company has said that it will only deal with the CTM at the plant, which concentrates *on production for the domestic* market.

The continuing saga at Cuautitlán has proved a severe test of the leadership of Mr Fidel Velásquez, veteran leader of the CTM, who will be 90 next month, and his ability to keep the union rank-and-file in order. Another big setback for him has been a prolonged work stoppage at the Modelo brewey in Mexico City.

Under an agreement mediated in early March by Mr Arsenio Farell, Labour Minister, workers were to be rehired *through the CTM* with the objective of resuming full production just after last weekend.

The company, however, has always reserved the right to re-hire on a case-by-case basis, with the implication that it would not take back alleged trouble-makers, especially five activists dismissed last year and held responsible for the breakdown in labour relations.

The Cuautitlán plant dispute came to a head on January 8 when CTM loyalists attacked dissident workers, killing one and injuring seven others.

Industry cleans environment to tune of $32bn a year

IN THE past 20 years, US industry has spent an average $32bn (£18.8bn) a year on environmental improvements, contributing almost two-thirds of the $1trillion (*million million*) spent in that time to cut US pollution, a new study says, Nancy Dunne reports from Washington.

The report, by the National Association of Manufacturers (NAM), said total environmental spending grew from $20bn a year in 1972 to $80bn, with industry bearing about 60 to 65 per cent of the cost.

Before Earth Day on Sunday, industry leaders were self-congratulatory on progress in cleaning the US environment. Having resisted much of the clean air/clean water legislation of the past 20 years, they acknowledged "significant economic growth" had been achieved, despite costs.

Mr Alexander Trowbridge, chairman of NAM's Coalition *for the Environment*, said that, 20 years ago, "we had an awful lot of rhetoric and exaggerations on both sides".

Environmentalists had claimed that, by the early 1980s, urban dwellers would be wearing gas masks.

But the study found important advances in environmental cleansing. Carbon monoxide emissions were 60 per cent lower in 1987 than in 1970; industrial CO emissions had been halved.

About 74 per cent of 370,000 miles of river surveyed met clean water standards, with 19 per cent partly meeting them.

AMERICAN NEWS

Mexico and US clash over anti-drug actions

MEXICO on Wednesday warned the US that it could withdraw bilateral cooperation in drug enforcement over the manner in which a Mexican suspect was taken to the United States, AP reports from Ixtapa, Mexico.

The Government said Mexican Attorney General Enrique Alvarez del Castillo told US Attorney General Richard Thornburgh joint efforts in the fight against drug trafficking would be endangered if it is proved that Dr Humberto Alvarez Machain was kidnapped.

Mr Machain, a suspect in the 1985 torture-slaying of US drug agent Enrique "Kiki" Camarena, appeared April 3 in the US under unclear circumstances.

Because of news reports that Mr Alvarez Machain, gynecologist, was kidnapped by either Mexican police or bounty hunters, Mexico announced on Tuesday that it was asking the US State Department "about the location and conditions in which Mexican citizen Dr Humberto Alvarez Machain was apprehended."

Mexico's Congress also opened an investigation into the case on Tuesday.

Mr Alvarez del Castillo and Mr Thornburgh met during a gathering of hemispheric officials to seek solutions to the drug problem.

"The Mexican attorney general told the US official that it is the exclusive province of Mexican authorities to fight narcotics trafficking in all its forms within its own territory," a statement by the attorney general's office said.

"If it is proved that the suspect was kidnapped and illegally taken to the United States by authorities of that country, it endangers the bilateral cooperation in the fight against drug trafficking, which until now have been excellent," the statement said.

Mr Thornburgh informed his counterpart that he had ordered an investigation into the case.

Some news reports have alleged that Mr Alvarez Machain was kidnapped by bounty hunters seeking a $100,000 bounty allegedly offered by the US Drug Enforcement Agency.

Mr Alvarez Machain, one of 19 people accused by a Los Angeles grand jury in the Camarena case, was arraigned earlier this month by DEA officials in Los Angeles.

Nova Scotia raises fear of secession in Canada

By Bernard Simon in Toronto

NOVA SCOTIA'S Premier, Mr John Buchanan, has raised the spectre of Canada's four eastern provinces joining the US, if tensions over the future of Quebec lead the francophone province to secede from the rest of the country.

In a comment intended to bolster support for the controversial *Meech Lake* constitutional accord, Mr Buchanan predicted that it would take about a decade for the Atlantic provinces – Nova Scotia, Newfoundland, New Brunswick and Prince Edward Island – to move towards the US.

The four provinces are geographically separated from the rest of Canada by Quebec.

In the event of Quebec opting for some form of independence, "we'd be really the rump of Canada," Mr Buchanan said.

Increasingly strident warnings have surfaced in recent weeks of the political and economic impact of a collapse of the Meech Lake accord, which recognises Quebec as a unique part of Canada and gives it the constitutional right to preserve and promote its distinctiveness.

Competition urged for US overseas calls

Hugo Dixon and Roderick Oram speak to the Federal Communications Commission

With sharply worded testimony to Congress and the launch of a study into competition in US long-distance telephone services, Mr Alfred Sikes has recently begun to assert his authority as chairman of the Federal Communications Commission.

The US is in danger of losing its position as the world leader in telecommunications, he told congressmen earlier this month, unless regulation is eased so groups such as the Bell telephone companies can provide the *panoply of services* demanded by users.

He also urged Congress to wrest crucial elements of telecommunications regulation back from Judge Harold Greene, who oversees the legal settlement which broke up American Telephone and Telegraph and created the Bell companies in 1984.

"National communications policy should be made by Congress, and the agency it established to implement that policy – the Federal Communications Commission. It shouldn't be devised and implemented on a day-by-day basis by the courts," he said.

Mr Sikes is well known around Washington as a deregulation advocate since his 3¼ years as head of the Commerce Department's telecommunications bureau before his appointment to the FCC. But he had taken a low profile for his first seven months at the FCC.

Taking a step towards the goal of freer markets, he launched last week a study of competition in long distance telephone services. The resulting changes should give AT&T more flexibility in how it sets prices.

As he sees it, the world has now entered the second stage of the Information Age. During the first stage, information services consisted of two types: the basic phone service, which was dominated by AT&T; and television, dominated by CBS, NBC and ABC. The FCCs role was essentially to prevent the dominant networks from abusing their position.

Now, in the second stage, there are many different information services and an increasing number of entrepreneurial companies providing them. Given this environment, Mr Sikes believes the FCC has to take a more dynamic role, otherwise there is a danger that progress will be held back.

In a recent interview, Mr Sikes defined four priority areas in which he believes the FCC should take more of a leadership role. The first priority is to "provide a regulatory environment that fosters competition." His second priority is to use the radio spectrum

Mr Alfred Sikes

better than in the past.

One idea that appeals to him is a system of "pioneer preference", under which entrepreneurs who come up with innovative uses for the radio spectrum would get preferential treatment when it came to awarding licences.

Another idea is to auction off the radio waves to the highest bidders for all services apart from broadcasting.

Mr Sikes' third priority is to increase the FCC's international profile. "I want an FCC that thinks in international terms not domestic terms," he says.

Thus, one of his first acts as chairman was to open a special office within the FCC for international affairs. He is concerned lest US companies are prevented from being agile in international markets by restrictive regulations at home.

He is also keen that foreign countries should open up their markets to US companies and that the US deficit in telecommunications services, which reached $2bn last year, should start improving.

Mr Sikes' fourth priority area is to "eliminate rules that are obsolete", which is his cautious way of saying that he wants control over the Bell operating companies shifted from Judge Greene to the FCC.

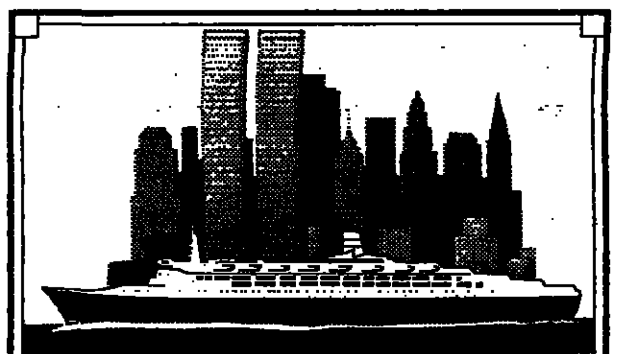
Judge Greene's policy of preventing the Bell companies from carrying information and entertainment services over their networks, from manufacturing their own equipment and from competing in the long-distance market, has sharply divided the US telecommunications industry into the "have nots", the regulated public networks, and the "haves", the unregulated private networks.

Mr Sikes believes that the interests of entrepreneurs and the established operators have to be balanced. If the entrepreneurs fear they are going to be stifled by the Bell companies the economy loses their talents and energies; but, if the established companies are shut out of new markets, the economy is denied their huge resources. Mr Sikes therefore advocates a system of "Open Network Architecture", which would allow rivals to get access to the Bell networks on a non-discriminatory basis.

In return, the Bell companies should be allowed to provide information services and to act as a common carrier for television programmes. Mr Sikes, though, has a tricky political task ahead of him in redefining the role of the FCC. Fortunately, his reputation as a good listener and a man with powerful political patrons will stand him in good stead. He also has industry credentials. Before his pursuing a Washington career, he was owner or partner in five radio stations in his home state of Missouri.

There has certainly been a dramatic shift over the past decade in attitudes towards telecommunications liberalisation. The UK is now firmly on the path towards deregulation. West Germany and Japan have taken important steps, and even France has shown itself willing to modify its regulatory structure.

This means that the FCC might be more effective in opening up foreign telecommunications markets if it were to harness the energies of potential allies abroad in a joint assault, instead of banging on closed doors as in the past.



CORRECTION NOTICE

Egypt Survey - 4 April 1990
NILE BANK

The annual results should have read

'Balance sheet as at December 31st 1989'

Government confident immigration plan fulfils duty to colony

Big revolt on plans for Hong Kong

By Philip Stephens, Political Editor

THE UK Government yesterday faced one of the biggest revolts by its own supporters since 1979 as it pushed ahead with its plans to give full British citizenship to up to 225,000 people in Hong Kong to secure stability in the colony.

During a key debate in the House of Commons, Mr Norman Tebbit, a former party chairman, warned that the nationality plan risked triggering social upheaval among racial minorities in Britain and would fail in its purpose of underpinning confidence in Hong Kong.

The opposition Labour Party also attacked the measure, claiming that it was designed to help an elitist minority. Mr Roy Hattersley, the Labour Home Affairs spokesman, said that his party would focus instead on promoting democracy in the colony.

Mr Tebbit said that it would overturn the Government's binding commitment during 11 years in office to prevent further large-scale immigration.

Amid confidence among ministers, however, that the legislation would clear its first hurdle last night despite the promised revolt, Mr David Waddington, the Home Secretary, said that the measures would both fulfil Britain's duty and serve its own national interest.

In a strong speech which gave no hint of his previous misgivings about the legislation, Mr Waddington said: "This is a case, if ever there was one, where duty and national interest march hand in hand".

Dealing with the criteria under which the 50,000 heads of household in key professions will be allowed right of abode in Britain, he insisted that the plan would anchor key groups in Hong Kong rather than encourage them to come to Britain.

The expectation last night was that the Government would lose the support of 50 or more Conservative MPs, but its confidence that it would win the key vote was bolstered by a number of factors.

Mr Paddy Ashdown, the Liberal Democrat leader, said that his party would reluctantly support the proposal, while a number of Labour MPs were

Sir David Wilson

said to be unwilling to vote with the Tory rebels.

Mr Tebbit, who said that his opposition to the bill would mark the first time he had voted against the Government, said Britain was already "overcrowded" and faced a hard enough task in integrating existing immigrants without accepting 225,000 Chinese.

● SIR David Wilson, Britain's governor of Hong Kong, said he hoped "in time" to be able to persuade China to recognise that the British passports scheme was aimed at creating a "prosperous and stable Hong Kong, not just up to 1997 but after as well," adds John Elliott in Hong Kong

He was aware of China's "suspicions" and said it was necessary to show that everything possible was being done by the UK and Hong Kong to make the territory a success.

China has repeatedly made it clear in recent months that it suspects the UK is trying to "internationalise" Hong Kong after 1997 by issuing British passports and by encouraging other countries to do the same. Sir David also said he did not accept the Labour Party's claims that the passports scheme was "elitist." The scheme had to be selective because 50,000 families had to be chosen.

Giving passports to that 50,000 would however "affect the livelihoods of everyone in Hong Kong" because it would help to keep the colony running.

Institutional interest in UK equities at lowest level for seven years

Overseas investment rises to new high

By Rachel Johnson

INVESTMENT in UK equities by the institutions is at its lowest level for seven years, while investment overseas has risen by an unprecedented £14.7bn, the Bank of England said yesterday.

It acknowledged that the steep outflow of funds from the UK to overseas companies made financing the UK's £20bn current account deficit more difficult because it added £14.7bn to the financing requirement overall.

"Large capital outflows at the time of a large current account deficit makes finding £20bn to balance the books harder," the Bank said.

Mr Mark Brown, a market strategist at UBS Phillips and Drew, said that the full-year figures emphasised both investors' mistrust of sterling and appreciation of more buoyant overseas markets during 1989.

"You have got to give them credit for putting their money overseas. Germany did very well last year," he said.

However, the fact that 40 per cent of institutions' cash flow went into overseas equities was not sustainable, he said.

The Bank said there had been a "marked recovery" in total investment since the stock market crash in 1987.

Major features of investment in 1989 were:

● a substantial net disposal of £6.4bn UK Government securities, or gilts, reflecting the repurchase of stock by the authorities during the year and lack of new issues available for investment. However, in the fourth quarter, the institutions collectively became net buyers of gilts for the first time since the beginning of 1988.

● a doubling of the flow of funds into land and fixed assets in the UK to £1bn in the fourth quarter of 1989.

● exceptional net inflows into long-term insurance funds of £4.8bn in the third quarter of last year, after £2.9bn in the previous quarter. The Bank said this probably reflected the public's increasing interest in buying personal equity plans through life assurance companies.

● Andrew Marshall, Economics Staff, adds: The government ended last fiscal year with a better financial position than had been expected in the most recent budget, though much below last year's forecasts.

The Public Sector Debt Repayment for 1989/90, which ended in March, was £8.0bn, up from £7.0bn forecast by the Treasury at the time of the last budget. The Public Sector Borrowing Requirement for the month of March was £1.6bn, though financial markets had expected it to be £2.5bn.

The £8bn surplus compares with £14.5 bn in 1988-9 and £3.4bn in 1987-88. The Treasury forecasts that the PSDR excluding privatisation proceeds will be £1.9bn this financial year, giving a total PSDR of £7bn. But the forecasts, which are the difference between two very large numbers, are normally subject to a wide range of error.

The principal reason for the better than expected figure was that borrowing by local authorities in March was lower than forecast, at 0.9bn for March and £1.3bn for the year. This accounted for approximately 0.6bn of the difference.

The increase had little effect on the markets, which are looking at this year's figures to see if the government can maintain fiscal discipline.

BRITAIN IN BRIEF

Thatcher blames gun contractors

Mrs Margaret Thatcher yesterday appeared to lay the blame for a two-year delay *in identifying an export order* for steel tubing as part of an Iraqi project to build a long-range gun squarely on the shoulders of the two British contractors.

As the political furore surrounding the "super-gun" intensified, the Prime Minister said that it had been the responsibility of the two companies – Sheffield Forgemasters and Walter Somers – to apply for export licences for the equipment.

Her explanation was fiercely attacked by Mr Neil Kinnock, the Labour leader who insisted that the Government had to bear responsibility for failing to heed repeated warnings about the nature of the deal.

● Space Research *Corporation, the* Belgium-based company accused by British officials of masterminding the manufacture of a large gun for Iraq, announced yesterday that it was ceasing operations. The move follows the murder last month of Mr Gerald Bull, the Canadian artillery expert who founded SRC.

MoD lacks information

The Ministry of Defence continues to buy equipment without adequate information on the cost of keeping it in service, according to a report yesterday by the Commons Defence Committee.

Unreliable equipment is reckoned to cause unplanned costs of more than £1bn a year. The MoD has indicated that about half this could be saved over a period of between 10 to 20 years, but that tighter contracting practices would themselves cost money.

The committee warned that much of the information on which procurement decisions were based would remain inadequate until better means were developed for estimating life cycle costs.

Unexpected support costs caused by unreliable equipment are reckoned at £650m a year for the Royal Air Force and £250m each for the Royal Navy and the Army.

Charge costly to implement

The Community Charge will cost twice as much to administer as the rates, according to a survey published yesterday by the Institute of Fiscal Studies.

The report also predicts that *the high administration costs* will continue, and that the poll tax will be shown to be inherently expensive to implement.

Researchers based their study on detailed questionnaire results received from 198 local authorities in England and Wales.

Wafting to work

Dank smells emanating from tunnels and unpleasant pongs from travellers crushed together in the rush hour are being masked by more pleasant fragrances on the 148-year-old East London underground line.

Commuters are wafting to work in fragrance-filled carriages, as part of an experiment by London Underground.

Tube managers say the seven scents – described as "lemon, sea fresh, mandarin, hyacinth, rose, cool water and wood" – are intended to reduce stress and bring on feelings of well-being among commuters who make six million journeys a year on the line.

Prison riot wears on

The last seven rioters at Strangeways prison in Manchester are holding out behind barricades and booby traps, fire bombs and sharpened scaffold poles, a prison officers' spokesman said yesterday.

As Britain's longest prison protest entered its 19th day, Greater Manchester police authority estimated the containment cost in overtime for more than 2,000 officers at "around £1m".

Welsh assembly not priority

The Labour party's promise of an elected Welsh assembly as part of its reorganisation of local government in England and Wales will not be a top legislative priority if the party wins the next General Election.

Although Labour has committed itself to the creation of devolved government for Scotland in its first session, Mr Barry Jones, Shadow Secretary for Wales, conceded in Cardiff yesterday that health, housing and the poll tax would be more pressing.

Labour would however, transfer the Welsh Office's £4bn budget to an elected assembly, although it would not have have powers to raise revenue or make laws.

Sell-off criticised

A former Royal Observatory site could have raised millions of pounds more than its eventual sale price, an independent Government spending watchdog said yesterday.

A National Audit Office report said officials did not do enough to ensure they received the best price for the 370-acre site at Herstmonceux Castle, East Sussex.

The report said the observatory site's owner, the Science and Engineering Research Council, accepted a bid of £8.1m before it fully investigated another bid of £14m.

Minister for London

London needs its own minister to tackle the city's deficiencies and safeguard its world status, Lady Porter, leader of Westminster City Council, said yesterday.

Her remarks followed the launch of a personal report in which she urges the Government to create the new post citing litter, crime and transport as primary reasons for a London minister.

Ruling due for Manx case

The preliminary hearing in the Manx High Court of the Savings and *Investment* Bank trial was adjourned yesterday until and the court will reconvene on Wednesday when Mr Thomas Field-Fisher, QC, the deemster judge, will rule on whether the trial should proceed.

Defence lawyers have argued that delays in bringing prosecutions have been so great that the trial should not be dropped. Mr Field-Fisher has ruled that Mr Victor Gray, one of the defendants, should not have to face trial at present because of ill health. Mr Gray and seven former directors, officials and agents of the SIB face seven charges arising from the bank's collapse in 1982.

Prince issues warning

The Prince of Wales yesterday warned business leaders it was "positively reckless" to walk away from the needs of the inner cities.

In a foreword to a report on the economic regeneration of inner cities, he said local communities need to be nurtured and equipped with the best education and training possible.

The interests of shareholders are best served by creating a culture which is supportive of business, the Prince wrote.

The report, Leadership in the Community – A Blueprint for Business Involvement in the 1990s, prepared by the influential Business in the Cities group, concluded that regenerating such areas is an "absolute necessity" for the economic survival and prosperity of Britain.

UK NEWS

Estate agents face legal curbs on sales abuse

By David Churchill, Leisure Industries Correspondent

TOUGHER controls on rogue estate agents are to be brought in by the Government before the end of the year in an attempt to curb widespread consumer concern about unethical and dishonest estate agents.

The controls were announced yesterday by Mr Eric Forth, Consumer Affairs Minister, and follow a report and recommendations last month from the Office of Fair Trading.

Mr Forth said that he was accepting the OFT's recommendations in full to establish a selective package of statutory controls within existing legislation.

Mr Forth added that he was disappointed that estate agents had not been able to agree a voluntary code of practice rather than facing legal curbs.

Relevant sections of the 1979 Estate Agents Act are to be strengthened to cover offences which, if flouted, could lead to an estate agent being banned from operating.

New offences would include wrongly describing a property's details, putting pressure on buyers to buy insurance, failing to disclose personal interest in properties, and falsely claiming higher bids on a property.

Former Hilton chief buys hotels

Allied-Lyons to sell Embassy chain for £202m

By Philip Rawstorne

ALLIED-LYONS, the food and drinks group, yesterday agreed to sell its Embassy Hotels chain for £202m to Jarvis Hotels, a private company set up last month by Mr John Jarvis, former chairman and chief executive of Ladbroke's Hilton International operations.

The sale is conditional upon the successful financing of the acquisition by Jarvis Hotels, which will pay £162m in cash and the remaining £40m through a guaranteed loan note, bearing interest at 5 per cent a year, and repayable in 1994.

Mr Jarvis said yesterday that he was talking to a number of interested institutional investors.

Embassy operates 41 hotels, with some 3,150 bedrooms, in London and many provincial cities. In the year ended March, 1989, it made trading profits of £9.4m on a turnover of £57.6m. Its net assets then were estimated at £78.8m.

Allied put the hotels up for sale last December, deciding after an extensive review of corporate strategy that they could not be included in the core development businesses.

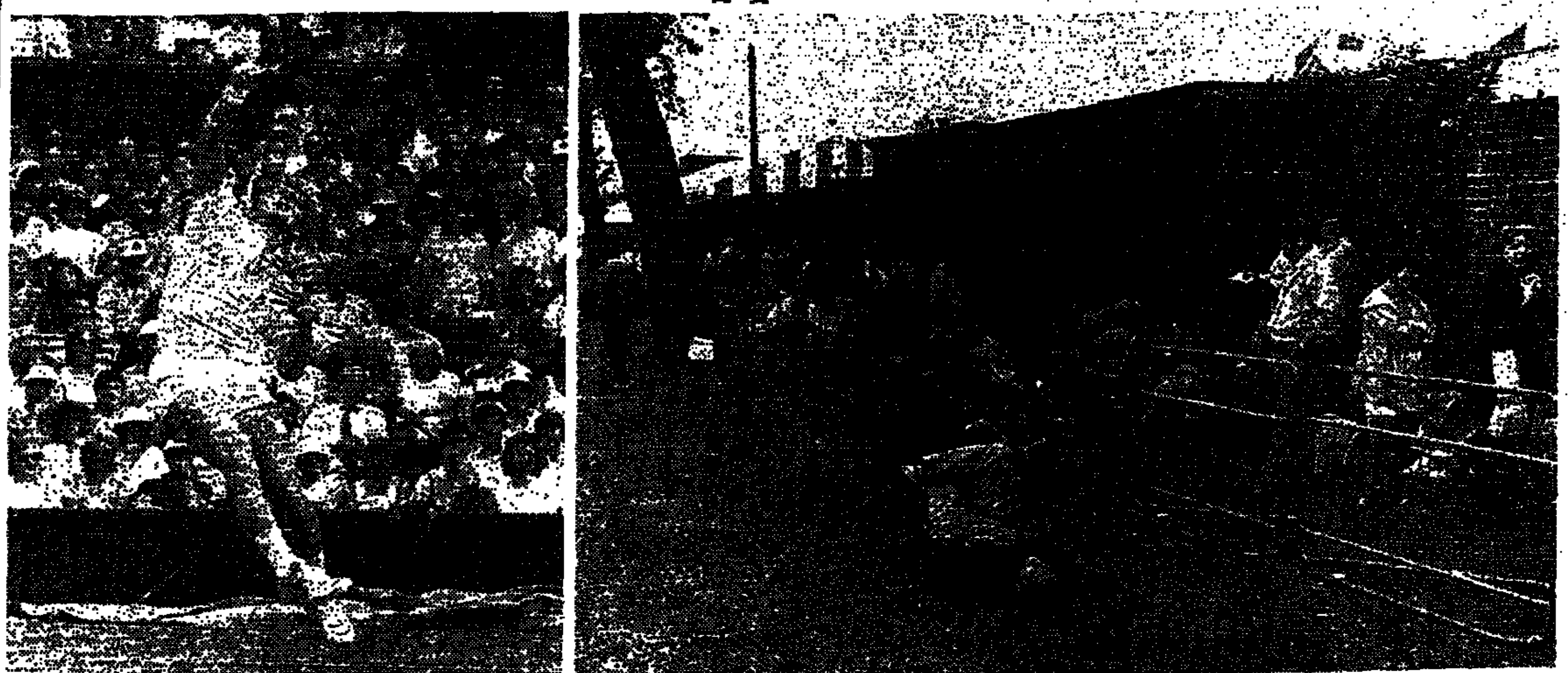
The proceeds of the sale will be used to reduce Allied's debt – estimated at around £2bn after the acquisition of the Whitbread spirits business for £545m four months ago.

Mr Richard Martin, Allied's chief executive, said the deal would cut the group's gearing from 82 per cent to 72 per cent. "After some hard bargaining, we believe we have arrived at a mutually beneficial deal," he added.

The price, equivalent to £60,000 a room, is at the lower end of analysts' forecasts but reflects the large number of hotel groups recently on the market. Bass put its Crest chain of 47 hotels up for sale last month.

Mr Jarvis, who left Ladbroke in February to form his own hotel business, and has since been joined by another former Ladbroke executive, Mr David Thomas, said: "I think we have paid a realistic price in the present market conditions.

Ticket touts win tacit approval from Government



The haves and have-nots: demand for seats at Wimbledon makes business profitable for the ticket touts, who find ready customers in the queue outside.

By David Churchill, Leisure Industries Correspondent

TOUTS who sell tickets at sky-high prices for the Wimbledon Lawn Tennis Championships, and other major sporting and cultural events were yesterday given the Government's seal of approval.

Lord Strathclyde, Tourism Minister, said: "There are dangers inherent in restricting what many would see as legitimate commercial activity and in perhaps unduly limiting the scope of genuine ticket agencies to operate."

The decision will dismay tourist organisations and organisers of major sporting events who had hoped the Government would take some action against touts who sell tickets for many times their face value.

Lord Strathclyde, however, said that it was up to organisers of events to ensure that their tickets did not lead onto a black market.

He cited the Wimbledon tennis authorities as an example of a sporting body which had been trying to directly tackle the problem.

However, he made clear that ticket touts for football matches were likely to be dealt with differently as a result of the Taylor.

Lord Strathclyde said that Mr David Waddington the Home Secretary was at present considering Lord Justice Taylor's recommendations to limit ticket touting at football matches and at the Wimbledon tournament.

Emergency services may look to Continent, US

Fire chiefs propose integration with ambulance service

By Alan Pike, Social Affairs Correspondent

INTEGRATION OF the emergency ambulance service with the fire brigade to form a single organisation was proposed by Britain's chief fire officers yesterday.

The proposal would structure the British emergency services on a pattern which is common elsewhere in Europe and in the US.

It forms part of a growing debate about the future of the ambulance service after the recent long industrial dispute and in the face of impending National Health Service changes.

Health authorities found that many patients made their own way to hospital during the dispute, and some are now reviewing the extent to which they need to use ambulances for non-urgent cases. Ambulance services in parts of the country already use private taxis and coaches for much of their non-emergency work, and this trend is likely to increase as next year's NHS reforms force authorities to seek the most economic means of transport.

The Chief and Assistant Chief Fire Officers' Association said yesterday that if it made good economic sense for health service managers to separate regular operations from the emergency service "the logical position for emergency ambulance work would be with the fire service."

Mr Brian Fuller, chief officer of the West Midlands Fire Service, said that if a considerable amount of ambulance work were lost to the private sector it would make it more difficult for the surviving emergency ambulance service to have its own control rooms, workshops and other facilities.

Integration into a single organisation could increase efficiency and offer the public a better service. And if the EC eventually adopted a standard structure for emergency services, it was likely to be based on the continental model where fire and ambulance services were already integrated.

The chief fire officers' proposal forms part of a report on the future development of fire and rescue services published yesterday. Its call for the integration of the emergency ambulance service was agreed unanimously by chief fire officers attending a seminar on the report last month. Many ambulance staff, however, are likely to regard the proposal as an attempted take-over rather than an amalgamation.

The report supports the continuation of the fire brigade as a local authority service, but questions whether the traditional local government committee structure is the best way of managing it. Although some local authority chief executives might disagree, says the report, the lead role in planning for major civil emergencies should be taken by the fire service or police.

Support for the retention of the fire brigades pay formula, which provides an automatic link between firefighters' pay and that of other occupations, is given by the chief officers. But the report says this should now be linked to a no-strike agreement.

The report expresses concern about Government proposals to stop directly funding the Fire Service College, and make this the responsibility of local authorities. Chief officers are concerned that this could undermine training standards.

ABB Kent set to form large part of new division

By Andrew Taylor, Construction Correspondent

ABB Kent, the British instruments group is to form a large part of a new division to be created by Asea Brown Boveri the Swiss-Swedish engineering group.

The new division will manufacture sophisticated control and measuring equipment for a wide range of process industries.

Asea Brown Boveri in February bid 178p a share for the remaining 45.6 per cent of ABB Kent it did not own.

The bid valued Kent, which is the world's second largest manufacturer of water meters at £135m.

Kent said yesterday that Asea Brown Boveri had purchased more than 95 per cent of its shares and was in the process of buying out the remaining shareholders.

The new division will be called ABB Kent-Taylor and will incorporate a large part of the Kent business supplying instrumentation equipment to process industries as well as the Taylor Instrument division of ABB Combustion Engineering in Rochester, New York.

The division will have annual sales of more than $250m.

The division will exclude Kent's water meter business.

Councils seek joint poll-tax legal challenge

By Paul Cutts

All 21 local authorities which have been penalised by the Government for setting what it sees as an unacceptably high rate of the controversial new poll-tax yesterday agreed to support a legal challenge against the Government's action.

Leaders of the opposition Labour-controlled councils met in London. They agreed to back Hammersmith and Fulham council's legal challenge, which is seeking leave to appeal for a High Court judicial review next Tuesday.

The councils will share legal costs by bringing an "umbrella action." Until the case is settled, all 21 will collect the poll-tax, or community charge, at the levels they set before being 'capped'.

A joint statement issued by the authorities revealed all the councils were considering their own legal positions "very carefully."

Margaret Hodge, Chair of the Association of London Authorities which represents nine of the 21 councils, told a press conference the selection of capped authorities had been "arbitrary and politically motivated." Roger Berry, leader of Avon County Council, said "The position of all of the authorities is that we do not accept the caps."

THE PROPERTY MARKET

Speculation pushes Japan's boom

By Stephen Fidler

The price of land in Japan's big cities makes property prices in central London look like a bargain. Proceeds from the sale of an area the size of the Imperial Palace grounds in central Tokyo would, it is said, buy all of Canada and the buildings on it.

A square metre in Tokyo's glittering Ginza shopping district was selling last year at $245,000, according to the national land survey, which tends to underestimate actual purchase prices.

Residential land prices in the Chiyoda ward of Tokyo – the home of Mr Toshiki Kaifu, the Prime Minister, and the most expensive in Japan – were logged at $80,000 a square metre. Land for housing in Tokyo is 150 times more expensive than in New York City.

While Japanese land prices have long been relatively high, over the last five years they have been in a speculative spiral; a consequence of the international economic co-ordination effort which kept Japanese interest rates low to prevent a collapse in the dollar.

The initial impact was in Tokyo, where demand for land was influenced by the influx of foreign financial services into the City. The effect has since fanned out, leaving few of the country's big cities unaffected. Last year residential land prices in Osaka rose by more than half – to more than 90 per cent of Tokyo's – while Kyoto, the ancient capital, experienced a 62 per cent rise. But as Japan's economic power has grown in the world, its high land prices have become more than a domestic concern.

By inflating the share prices of companies which own land, it is said that high property prices allow Japanese companies to raise the world's cheapest equity capital.

According to Kenneth French and James Poterba of the Massachusetts Institute of Technology, land prices make up more than half the tangible assets of Japanese companies compared with about 12 per cent of their US counterparts. Lax money has helped the latest upward spiral in prices, but they were high in the first place.

The reasons are structural. Some, indeed, make it advantageous to hold land over other assets. Some discourage the efficient use of land.

Work by Mr Yukio Noguchi, Professor of Economics at the Hitotsubashi University, shows that the huge disparity in property prices between Japan and other developed countries is not reflected in office rents. In 1987, office rentals in the Marunouchi district of Tokyo were only double those in the City of London or in Manhattan.

Encouraged by 40 successive years of land price rises – with the exception of 1975, after the first oil price shock – most buyers of land appear not to purchase with rental income in mind, but for capital gain. Many companies and individuals thus use land holdings as collateral against which they borrow to buy . . . more land.

The emphasis on land use seen in other countries is not so highly developed in Japan because it is less important than ownership. On top of this, the tax system and the building and leasing laws, which give unusually strong rights to tenants, work against efficient use of the land.

Lease laws make it virtually impossible to oust a sitting tenant by legal means – a strong disincentive to letting residential buildings. A building with sitting tenants will invariably reduce the value of the land on which it sits. That partly explains why so many underused sites lie so close to the centre of Tokyo.

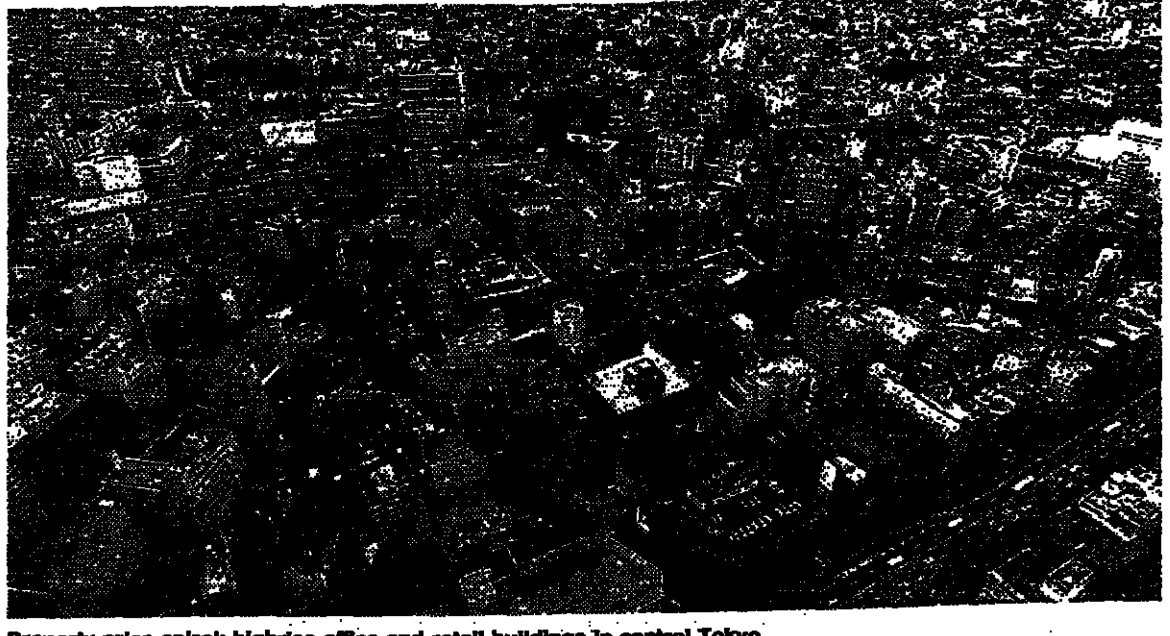
But anomalies in the tax system provide another reason why so many tiny fields are cultivated so close to the centre of cities in Japan. There are 200,000 hectares of farm land within 50kms of central Tokyo, 36,000 hectares in the Tokyo urban area alone.

One legacy of the economic priorities in post-war years is the protection granted to farmers. Farmland, even in urban areas, attracts hardly any property tax.

According to research from the Economic Research Institute of Japan's official Economic Planning Agency, tax on housing land is almost 400 times as heavy as on land used for farming. Under certain assumptions, the institute calculates that equalising tax on farmland and housing land in urban areas would render farming uneconomic, increase the supply of housing land and thereby reduce the price of land by up to 25 per cent over 10 years.

Another critical factor in propping up land prices has been the way inheritance tax is assessed.

Mr Noguchi estimates that for inheritance tax purposes land is valued at about half the market price. As a result, parents try to pass on land, rather than financial or other assets to their children. Not only that but if a parent borrows to buy land, the debt is tax deductible for his heirs.



Property price spiral: highrise office and retail buildings in central Tokyo

Efficient land use is further constrained by restrictive planning laws which limit the height of buildings to 10 metres in most areas. Now that construction technology seems to be able to cope with even severe earthquakes, such a restriction has less real value.

Confronted with these issues, many Japanese agree in theory with the need for reform. In practice, however, there has been almost a conspiracy of inertia.

There is also strong and understandable support for the lease laws which are seen as playing an important social role. Still reform of these laws would free more land for housing and the main beneficiaries would be the poor and the lower middle classes.

Sixty per cent of Japan's population owns a piece of land. In Tokyo and including those expecting to inherit, this figure reaches close to 80 per cent. Gaining consensus on reform is thus difficult, even though huge numbers of those who consider themselves winners from high land prices may really be losers; for example, those who face two-hour journeys to work because they cannot afford to live nearby.

Judging from the collapse in stock prices since the beginning of the year, the Bank of Japan's tighter money policy is beginning to have an effect on asset prices – as reflected in the fall of about 25 per cent in Japanese share prices.

Its moves to raise interest rates seem to be taking some of the steam out of the country's inflated asset markets.

Japan has promised the US that this year it will submit a bill to the Diet to review the tax charge on farm land in metropolitan areas and to implement tax reform starting in 1992. It will also review taxes on unused land with a view to giving owners an incentive to use it. But the worry for those seeking more fundamental reform is that it is sharply rising land prices which disturb the Japanese, not the fact that prices are too high. If the Bank of Japan policy succeeds, that unease may dissipate along with the political will for land reform.

UK CAPITAL GROWTH (%)

	Retail	Office	Indust	Allprop
Year to Feb '90	0.6	11.0	16.5	7.3
Quarter to 2/90	-2.6	-1.0	-0.1	-1.5
Month, Feb 90	-0.9	-1.2	-0.3	-0.9

Source: Investment Property Databank

COMMERCIAL PROPERTY
ALSO APPEARS ON PAGE 20.

INTERNATIONAL PROPERTY

INTERNATIONAL PROPERTY

TECHNOLOGY

John Griffiths on Lotus's progress into electronic vehicle innovation

Designs for easy riders

The time: the late 1990s: the place: a lonely, heat-baked desert road in Arizona. Without warning, the sports car which is its driver's pride and joy *coughs, stutters, then glides to* an halt at the roadside.

In time-honoured manner the driver gets out, opens the bonnet and hopes to find something obviously wrong.

In the simple days of carburettors and contact-breakers, it might well have been easy. Now there are no clues; the engine is barely discernible *beneath a festoon of systems* wiring and inscrutable electronic black boxes.

But even as the first vulture is cheerfully applying its air brakes, the driver is punching at a bank of cockpit buttons. A continent away, at Hethel in Norfolk, a receiver begins to pick up the data being bounced back by satellite from the stranded car in Arizona.

A computer inside Group Lotus – Hethel is the home of General Motors' sports car and engineering subsidiary – compares the incoming data with the main database for the model and identifies the minor problem that has developed in its electronic engine management system.

Within seconds encoded instructions are being sent via the satellite into the car's receiver, reprogramming circuitry to isolate and bypass the problem. A dashboard message signifies that the car is operative again. The driver fires up and heads off into the sunset, leaving only the sound of gnashing beaks.

Michael Kimberley, chief executive of Group Lotus, has been steering the company's activities since well before its consultancy engineering activities began a decade ago. In describing the above scenario, he and his senior electronics and engineering colleagues at Group Lotus are trying to establish a belief that the concepts contained in it are likely to become a reality for an increasing number of the developed world's motorists.

For commercial reasons, such as getting component costs down to reasonable levels, such a situation might not be feasible by the late 1990s, they acknowledge. But the system is already technically achievable and, says Lotus, there is no reason why remote electronic fault diagnosis and correction should not become an accepted part of motoring early in the 21st century.

The concept of a remote "intelligent" diagnosis and service centre is just one aspect of electronic vehicle innovation on which Lotus has been working for some time. However, says Kimberley, this is being facilitated at an unexpectedly rapid rate as a result of the company's emphasis on data acquisition and analysis.

He uses Team Lotus's racing activities as an illustration of how unexpectedly informative, and important, sophisticated data collection has proved in developing systems such as electronically-controlled "active" suspension and steering, on which Lotus is working for various motor industry clients.

Described in simple terms, active suspension is a system in which sensors monitor all the forces acting on a car, including surface unevenness, and convey their information instantaneously to a computer. The computer commands two-way hydraulic rams, capable of working in hundredths of a second, to counter any unwanted changes in the car's attitude underbraking, cornering, or over rough roads.

But it embodies potential hazards, too, as was shown up in the data stored from one grand prix where a prototype active suspension car was used. The car crashed with a sudden puncture, or so it seemed until the data which on-board sensors had been transmitting into the car's "black box" were analysed.

By reading the force measurements, Lotus technicians learned that the puncture had begun to develop a full two laps earlier. The driver had been unaware of it until the last moment because, so effective was the active suspension that it had successfully compensated for the deflation right up to the point that the tyre disintegrated.

With active suspension touted to become a standard feature of most cars by early next century, eliminating such potential hazards assumes profound importance. Electronic tyre pressure monitoring is one solution – but, as Lotus's engineers point out, so radical are the advantages offered by active suspension that even a fundamental redesign of the pneumatic tyre since it was invented cannot be ruled out.

"You can even ask yourself, given the way in which an active suspension will pick itself up over a bump, whether you even need air in the tyres at all," observes Kimberley.

Meanwhile, Lotus has given its first detailed indications of how it is tackling "active" steering. Lotus intends the active part of the steering to be carried out by the rear wheels – the electronic system turning the rear wheels either in parallel with, or in the opposite direction to, the driver-steered front wheels, depending on the nature of the forces at play.

Michael Kimberley of Lotus

One example of how it will work, says Kimberley, is provided by a car so equipped passing a truck at high speed on a motorway. Instead of having to prepare the driver to counter a sudden sideways gust, the active steering will sense the sudden sideforce and instantly balance the car against it. "The driver shouldn't even be aware that anything's happened", says Kimberley.

'Relentless pursuit of perfection'

Stefan Wagstyl examines quality control on Toyota's luxury model

Inspectors in white gloves spearhead the efforts of *Toyota Motor, the Japanese* car maker, to challenge Daimler-Benz and BMW in the luxury car market, the last frontier for the Japanese auto industry.

A team of quality control experts examines every car coming off Toyota's luxury model assembly line at Tahara, in central Japan, where the company produces its first luxury model – launched last year in the US as the Lexus LS400 and as the Celsior in Japan.

Working under bright lights like surgeons, they listen for the slightest unexpected sound from the V8 engine and look for the smallest scratch on the paintwork. They use computers to check the alignment of the wheels and the accuracy of the steering. At the end of the line is a large board where workers have written slogans like: "I am determined not to fit any wrong parts."

To Toyota's embarrassment, two small faults last year *escaped detection – cars in* the US had to be recalled after dealers reported problems with a brake light and with the cruise-control. But overall, the Lexus/Celsior has reached new heights of quality control for Toyota Motor.

Signs comparing the Lexus/Celsior with the latest BMW and Mercedes-Benz models hang above the inspection lines to inspire workers and impress visitors. The Lexus/Celsior costs some 50 per cent more to produce than Toyota's previous top-of-the-range car, the Crown, according to company estimates.

Setsuro Sekiya, the plant manager at Tahara, says the bulk of this is absorbed in many unseen improvements spread across the whole factory. The meticulous final inspection – which takes four times longer for a Lexus/Celsior than for a Crown – is only the most visible change.

The others are dotted about the manufacturing process. *Unlike Toyota's other plants,* where the main aim of production improvements is to cut costs, the goal at Tahara has been to raise quality – trying to make the car safer, sleeker and faster than rival models.

As a result Tahara is by no means the most highly automated of Toyota's plants. Instead, its outstanding feature is the selective use of new methods and technologies.

In the engine plant, the challenge was to produce a V8 engine superior to the V6, installed in other top-line models, which had itself only gone into production in 1987.

Engineers found they could *boost output simply by making* the engine components more accurately, cutting the the maximum variation in the size of the engine chamber from 0.8 cubic centimetres to 0.6 cubic centimetres, for example.

Engine blocks are made on an automated line, with the aluminium casting moving *from one robot to another for* tooling. In the past, inspectors took one block off the line per shift to check that the robots were operating properly. Now, a computerised robot has been installed which automatically checks one block in 30, giving an instant read-out of the dimensions in the form of a chart for ease of inspection.

By improving the finish on polished engine parts, engineers can reduce friction and thereby improve efficiency. Toyota developed a special cork-like substance to give components a final rub after they have been smoothed by conventional polishing materials.

The inspection of engines has been improved by building a sound-proof testing room where engines can be run at full throttle without the noise disturbing nearby workers.

Over the gates of the body shop hangs a banner saying: "The relentless pursuit of perfection." The bodyshop is the most highly automated part of the Lexus/Celsior production process with 94 robots, 74 of them welding. The newest innovation is a laser welding machine which seals joints by melting together two or more pieces of metal.

Toyota, using its own in-house machine tool workshops, has built a laser-welding machine able to weld steel of different thicknesses. It produces a side panel in one operation – welding together a thick piece of steel at the bottom, galvanised for protection against rust, thinner pieces in the middle, and a thicker piece at the top for reinforcing the body in case of accidents.

One of the most difficult operations is fitting doors. It used to be done by hand, now a robot aligned by means of lasers fits doors to within 1 millimetre in accuracy.

On the assembly line, where the Lexus/Celsior is assembled together with the Soarer and Supra models, each car is tagged with an electronic card hung on the chassis. This alerts robots to its individual specifications so they can, for example, select and install seats of the right shape and colour. At one point on the assembly line the Lexus/Celsior bodies are automatically routed on to a separate line, where front grille parts, more complex than for the Supra and Soarer, can be installed.

Chip industry calls for new trade rules

By Louise Kehoe and Michael Skapinker

Semiconductor manufacturers from the US and Europe are calling for radical changes to anti-dumping laws to prevent any recurrence of their trade battle with Japan over memory chips, which began in the early 1980s.

Two trade groups, the US-based *Semiconductor Industry* Association (SIA) and the European Electronic Component Manufacturers Association (EECA), have called for modification to the anti-dumping code during the current round of Gatt negotiations.

Existing trade rules are inadequate, the industry groups claim, because they punish dumping only after a domestic industry has suffered serious, sometimes irreparable damage. "Dumping companies can achieve long-term market advantages, elbow out their competition – sometimes permanently – while government action is too lenient to deter repeating the unfair practices," the industry groups charge.

The problem is particularly acute in the semiconductor industry. By the time bureaucratic wheels have turned and a dumping case is completed, the products in question may already be obsolete. "Our experience and the experience of other high-technology industries show that anti-dumping laws were devised to deal with products with far longer life cycles," says Eckhard Runge, EECA's secretary general.

Wilfred Corrigan, chairman of the SIA, adds that "during the last round of D-Ram dumping, remedies came too late to save American firms which were driven from this market." All but two US D-Ram manufacturers withdrew from the market in the mid-1980s.

Similarly, the European Commission reached an anti-dumping agreement with 11 Japanese manufacturers last January, two and a half years after it first launched its investigation and at least four years after the dumping began.

Fears that dumping may recur make it difficult for semiconductor manufacturers to commit themselves to long-term, costly investments in research and development as well as in new plants, the industry groups say.

The US has a five-year semiconductor trade agreement with Japan which is due to expire in September 1991. The EC-Japan accord will be reviewed in the same month. Chip makers are anxious to have new dumping laws in place before these agreements end. "We are holding on to a safety rope," says Warren Davis, SIA vice president. "We cannot afford to let go unless something else is in place."

The perceived threat of dumping comes not only from Japan. A focus of the semiconductor industry groups' attention is Korea which has greatly expanded its exports of chips over the past five years.

The US and EC semiconductor groups have agreed on three basic principles and supporting provisions aimed at improving the effectiveness of international anti-dumping codes:

- Deter injurious dumping.
- Prevent evasion through third market sales.
- Include all costs in fair value calculations.

The groups have, for example, agreed upon a common definition of what constitutes a "fair price" for a semiconductor chip. This has involved assessing how various costs should be assigned and agreeing upon what a fair profit margin should be.

EECA's Runge says that western semiconductor companies' own dumping investigations could enable the authorities to act much more *quickly*. "If at the stage of preliminary investigations, it's clear that dumping has occured, then action should take place immediately. It should not take years to establish the facts."

SIA and EECA, which have been meeting for over a year to discuss the dumping issue, have yet to address what may be the most controversial and problematical aspect of their proposals. To make early detection of dumping and swift response possible, some form of price monitoring system needs to be established.

In the case of D-Rams, Japanese export price data is being collected under the terms of the US-Japan semiconductor agreement. That mechanism, or a similar one, would have to be expanded and made permanent in order to implement the proposed changes in anti-dumping laws.

FT LAW REPORTS

Digest of Hilary Term cases

FROM JANUARY 31 TO FEBRUARY 16

GLYNN v INLAND REVENUE COMMISSIONER
(FT, January 31)

The taxpayer agreed to work as an executive director for a company in Hong Kong on terms that the company would pay his children's education costs. It was held that the fees constituted income from his employment assessable to Hong Kong salaries tax. Upholding that decision, the Privy Council stated that it sufficed to say that an identifiable sum of money required to be expended by an employer, pursuant to a contract of service for the benefit of its employee, was money paid at the request of the employee and was either part of his salary or was a monetary perquisite taxable as such according *to UK law and authorities.* It was money paid at the employee's request, and salaries and perquisites must be taken to have the same meaning in Hong Kong tax law, which was based on UK law.

RE ORGANON LABORATORIES LTD
(FT, February 2)

The licensing authority appealed against a Divisional Court judgment, quashing its decision to vary the licences, on the ground that evidence regarding an anti-depressant drug was admissible to show that the drug had low toxicity when taken in excessive quantities. The licensing authority's decision to exclude had been based on EC Directive 65/66 that safety in overdose was not a relevant factor in assessing the safety or harmfulness of a drug. The Court of Appeal, upholding the Divisional Court's judgment, stated that although the UK was in breach of its treaty obligation to harmonise the law on medicinal product licences on the lines of the Directive, section 28 of the Medicines Act 1968 was the applicable test of "safety" in administration of the drug and safety did not involve an immutable standard. Very few drugs were entirely free from risk of side effects in some patients. The question must always be whether the degree of risk was sufficiently low to be acceptable, and that could not be addressed without an appreciation of the benefits to be gained from taking a risk of that degree.

SOCIEDADE NACIONAL DE COMBUSTIVEIS DE ANGOLA UEE AND OTHERS v LUNDQVIST AND ANOTHER
(FT, February 6)

Under a Mareva injunction, the defendants, Mr Lundqvist and SLOES, were required to give details of the "value and whereabouts" of "his" assets wherever situated. Section 14(1) of the Civil Evidence Act 1968 provided that a person's right in non-criminal proceedings to refuse to answer any question or produce any document if to do so would tend to expose him to proceedings for an offence: "(a) shall apply only as regards criminal offences under the law of any part of the UK . . . " It was plain that the fact of the witness being in danger had been established in Mr Lundqvist's case. The question was whether the value and whereabouts of his overseas assets would form a link in the chain of proof against him on a criminal charge. He was to be allowed great latitude in judging that for himself. And it appeared distinctly probable that the value of his assets might be such a link – not that it would be. The claim for privilege was upheld insofar as Mr Lundqvist and SLOES were required to state the value of his assets overseas. The same reasoning did not apply to the nature or situation of those assets.

THE MEXICO 1
(FT, February 7)

Under a charterparty commencement of laytime was expressly related to notice of readiness. However when the master gave notice that the vessel was ready to commence discharging, the cargo was partly overstowed with another cargo and it only became accessible after three weeks. Allowing an appeal by the charterers, the Court of Appeal held that there was no basis for finding that laytime began before the operation of discharge began. The second question was whether it was permissible to regard two-part cargoes carried on the same vessel to the same port for the same charterers, as constituting a single cargo, so that notice of readiness could properly be given as soon as the whole of one part was available. They were two different contracts and there was nothing in the one to annul the provisions of the other and to substitute a single contract.

METTOY PENSION TRUSTEES LTD v EVANS AND OTHERS
(FT, February 9)

Under Mettoy's pension scheme, the trustees held the pension fund on irrevocable trusts to pay pensions and other benefits in accordance with terms of the fund. On winding up 2,500 were entitled to benefit. Surplus over mandatory benefits was estimated at about £9m. Mettoy submitted that, under the deed, members' rights were satisfied when they had received their mandatory benefits. Whether they received more lay in the bounty of the employer. That was not correct, Mr Justice Warner stated and the beneficiaries had a right to be considered for discretionary benefits. The discretion conferred on the employer by rule 13(5) was a fiduciary power in the full sense.

CAPARO INDUSTRIES PLC v DICKMAN AND OTHERS
(FT, February 13)

In the present action Caparo alleged that a takeover bid was made in reliance on inaccurate or misleading accounts by which an apparent pre-tax profit of £1.3m should have been shown as a loss of over £400,000. It said had the true facts been known it would not have bid and it alleged fraud and negligence against the accountants. On a trial as a preliminary issue, it was held that the auditors owed no common law duty of care to the shareholders or to the investors. In the Court of Appeal, it was held that while there was no sufficiently proximate relationship between an auditor and a potential investor to give rise to a duty of care, there was such a relationship with individual shareholders. The accountants cross-appealed to the House of Lords which held that it was difficult to visualise a situation in which individual shareholders could claim to have sustained a loss in respect of existing shareholdings referable to auditors' negligence. A purchaser of additional shares stood in the same position as other investing members of the public to whom the auditors owed no duty.

GUINNESS PLC v SAUNDERS AND ANOTHER
(FT, February 14)

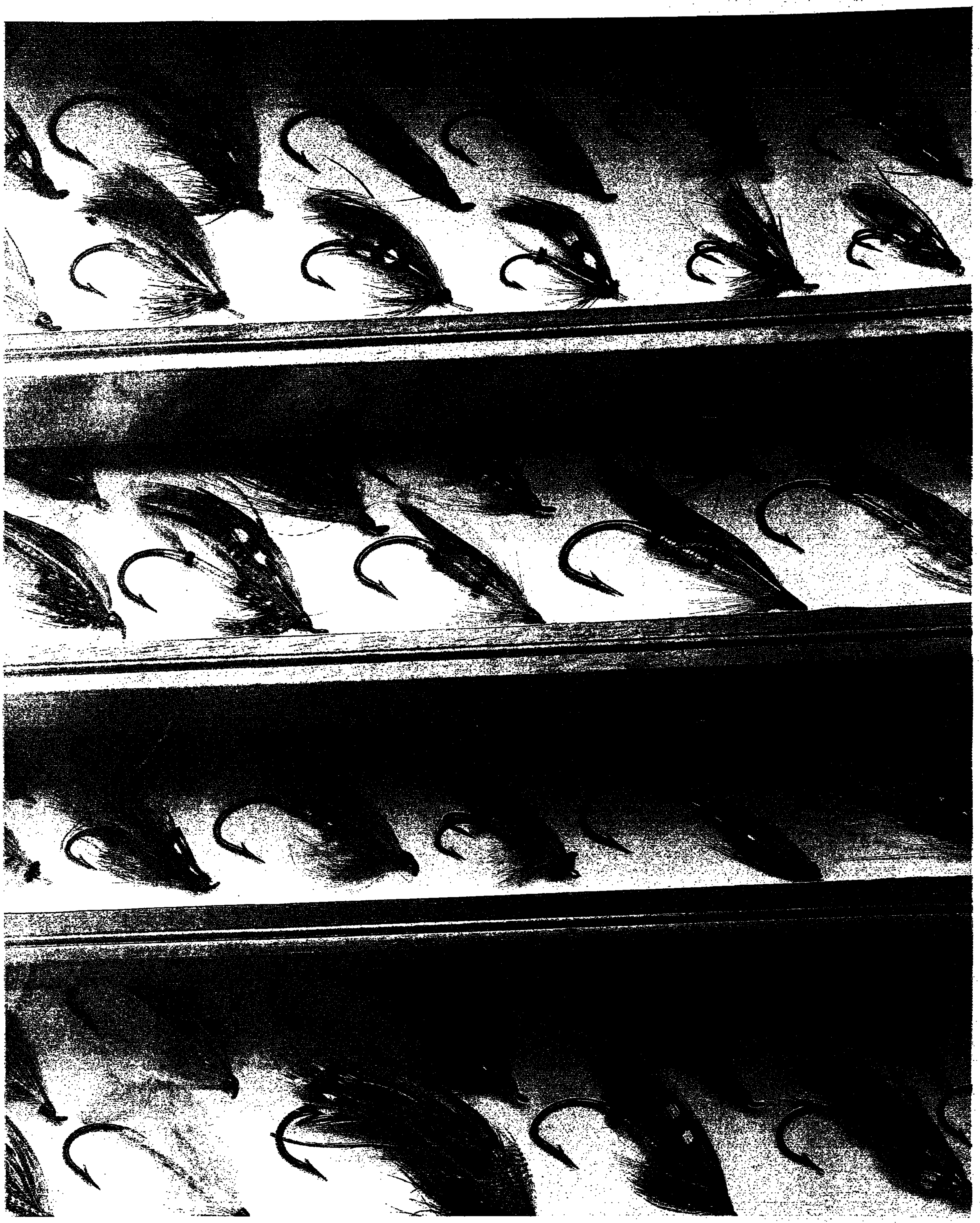
Mr Ward admitted receiving £5.2m of Guinness money when he was a director of Guinness. Payment was, said Mr Ward, remuneration authorised by Mr Ernest Saunders, Mr Olivier Roux and himself, who formed a committee of the Guinness board. In the present proceedings Guinness sought an order for immediate repayment on the ground that the payment was unauthorised under its articles of association. The Vice-Chancellor made the order sought by Guinness and his decision was affirmed by the Court of Appeal. Mr Ward now appealed. Dismissing the appeal, the House of Lords stated that article 91 drew a contrast between the board and a committee of the board. The board was expressly authorised to grant special remuneration to "any" director who served on "any" committee. It could not have been intended that any committee should be able to grant special remuneration to any director, whether a member of the committee or not.

THE PO
(FT, February 16)

Article 1(1) of the Collision Convention provided that a collision action could only be introduced before the court of: (a) the place of the defendant's residence or place of business; (b) the place of arrest of the defendant ship or of "any other ship belonging to the defendant . . . or where arrest could have been effected and bail or other security has been furnished;" or (c) the place of collision, when it occurred within port limits or inland waters. Article 1(2) provided that it should be for the plaintiff to decide in which of those courts the action should be instituted. The plaintiffs relied on article 1(1)(b), in an action arising out of a collision of a US merchant ship and the defendant Italian ship, the Po. Refusing the application by the defendant owners that the action be stayed, Sheen J stated that in the present case the owners undertook by letters of guarantee from the P&I Club to pay any sums due to the plaintiffs so that the crucial words of article 1(1)(b) applied, namely that "bail or security" had been furnished.

Aviva Golden


The Europeanist



MANAGEMENT

Overseas listings

Mining a wider seam of shareholder loyalty and enhancing financial clout

Simon Holberton examines the motives of companies seeking quotations on a number of stock exchanges

If all the necessary documentation can be completed by the end of this month, RTZ Corporation will make its debut on the New York Stock Exchange in June. It is already listed in London and on seven other European stock exchanges.

The documentation is a US Securities and Exchange Commission requirement to ensure that RTZ's financial reports conform to US generally accepted accounting principles (GAAP). It is now nearing completion.

George Naylor, head of investor and public relations, opens a huge file and on top sits RTZ's draft Form 20-F, the SEC document in question. RTZ has up to six months after it last reported to get a listing on NYSE and it last reported for the year ending December 31 1989. The SEC can take up to eight weeks to process a Form 20-F application, hence the need to get it to the SEC by the end of April.

Ian Strachan, RTZ's finance director, says the document is just like an annual report and adds: "The regulatory problems [associated with a US listing] are much less onerous than we first thought." The main adjustment RTZ has to make to its UK accounts to bring them in line with US GAAP requirements concerns goodwill and the way it accounts for its mineral reserves.

More and more British companies are looking to list themselves on foreign stock markets, especially in New York. So far, 50 British companies have sought a listing on one of New York's three stock exchanges, accounting for nearly half of the 102 UK-based companies which have listed on foreign exchanges. The reasons for a foreign listing are three-fold:

- If, as many companies and RTZ in particular believe, there is unfulfilled demand for their shares, then making it easier for a wider investor population to buy their stock should produce a higher share price than otherwise would be the case.
- A foreign listing, particularly in the US, gives the company access to a much larger potential pool of capital than it currently enjoys. As a complement to its decision to list on the NYSE, RTZ is also seeking a rating from Moodys Investor Services and Standard and Poors for its short and long term corporate debt. This will allow it to seek access to the US commercial paper market, the largest market of its type in the world.
- A broad geographical spread of share ownership and a higher than otherwise share price might make it more difficult for a company to be acquired.

Strachan says this consideration was "neutral" in his and RTZ's thinking about listing on the NYSE. A company's size, he says, is no longer a guarantee of protection against a predator.

- A related issue is the loyalty of foreign shareholders. Before the October 1987 stock market crash, US investors owned 7 per cent of RTZ. Virtually overnight that holding fell to 3 per cent where it has remained since: the stock was dumped in London, where much of it was held by US funds, and RTZ's share price, along with all others, fell sharply.

There is no way of knowing, or proving, that US investors would have held RTZ shares during those dramatic days but the experience of other companies, such as Imperial Chemical Industries which took a full listing on the NYSE in 1983, is illuminating.

Alan Clements, the finance director, notes that before the October crash, US investors held about 16 per cent of ICI's equity through American Depository Receipts. Today US investors hold 11 per cent of ICI's equity in the form of ADRs. Prima facie, it would appear that the greater the market's familiarity with a company – and a US listing does breed familiarity – the greater the willingness of investors to ride out the bad in anticipation of the good.

The listing of RTZ's American Depository Receipts (ADRs) – one ADR will be backed by four RTZ ordinary shares – will bring to an end a process which has occupied Strachan since the beginning of 1988 (and Naylor for the past year) when he was given a provisional go-ahead by a reluctant RTZ board to explore the possibility of a quotation on the NYSE.

But it will not stop there. It will entrench an attitude of greater openness which the senior management of RTZ have had to learn over the past two years. This has been in direct response to the demands for information by investors and stock analysts in America. In a sense, the public face of RTZ today has been irrevocably changed by its decision to have its shares quoted in New York.

In its pursuit of a New York listing, RTZ has had to learn the lessons of many which have gone before. But its approach to the US market, both investor and analyst alike, has all the hallmarks of a professionally mounted and executed plan. "Consistent" is a word Strachan likes to use when describing what is required in the US and consistency is a virtue many considering listing in New York would do well to imitate.

"Consistent" is a word Strachan likes to use when describing what is required in the US and consistency is a virtue many considering listing in New York would do well to imitate.

During 1987, Strachan lobbied his fellow directors in support of a US listing. Finally, in early 1988 he won approval to investigate it further. He went to New York to meet the top half dozen "sell analysts" – the analysts on whose advice the investment community leans – at brokerage houses and investment banks. The message he received from them was that US investors would be interested in RTZ, but it needed to be listed on a US exchange.

He then set out to discover the potential market for RTZ stock among the US investment institutions. He hired a consultancy, Gavyn Anderson & Company which, by the summer of 1988 had prepared a detailed report on the major US institutions: their size, their attitude toward investment and the person concerned with natural resources and mining stocks.

RTZ's finance director then turned salesman. In more than 100 meetings with institutional investors, some more than once, he attempted to sell them the idea of globalisation. He winces at the use of the term but says: "I believe that global stocks are the 'wave of the future.' Investors will not only want stocks rooted in a domestic market but ones with an international spread of businesses like RTZ."

Unlike the mining stocks with which US investors and analysts had been familiar, RTZ was not a single commodity stock; it has a broad range of mining assets located throughout the world, the income from which is denominated primarily in dollars and other major currencies.

"Single play stocks" as he calls the other US mining companies are vulnerable to the vagaries of the economic cycle.

RTZ is more complex than that, with mining assets that include copper, gold, iron ore, coal, titanium, aluminium and borax, to name but a few. The latter came into the RTZ portfolio through its purchase of BP Minerals last year and Strachan uses that acquisition to underline the fact that RTZ is also a significant US company; a third of its operating assets are now located in, and half its attributable profits now derive from, mining activity in the US.

"The first year was quite uncomfortable; no one knew us," Strachan says. "Analysts wanted to go into great detail about our copper and aluminium operations. The questioning was aggressive. They wanted to know what our earnings would be. . .tomorrow. We don't give earnings forecasts and we don't normally discuss our business in such detail. A lot told us 'if you don't tell us more than you are prepared to then we're not buying you'."

Generating analyst interest is one of the crucial paths to success in New York. As Strachan says, a company has to be followed by a group of sell analysts. Analysts themselves are market driven and their market is the US investment institutions which buy stocks through a US stock exchange.

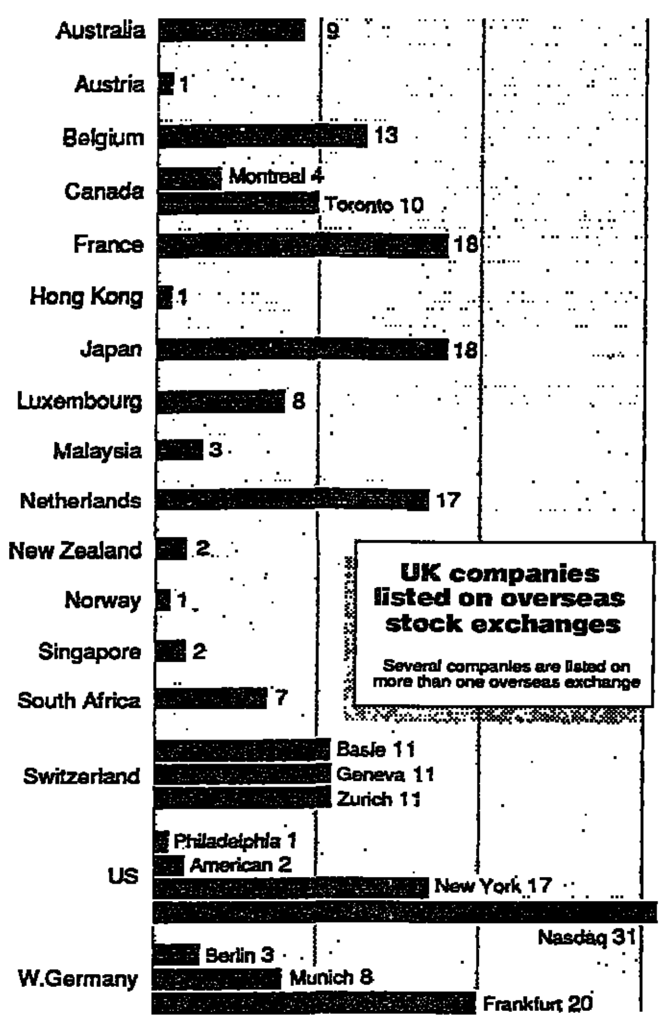
As Strachan, and others, note, the US analysts are a breed apart. They have a consuming desire for detail, are experienced and curious researchers, and are always on the look out for the interesting angle.

As ICI's Clements notes: "You have got to be prepared to make the effort and go over there even when times are bad. They give you more marks for telling them about your problems and how you are dealing with them than for achieving unexpectedly high earnings."

Despite the bruises of the first year Strachan repeated the exercise last year when the 1988 final results came out in the spring and the interim results in October. Derek Birkin, RTZ's chief executive, participated in the latter meetings with investors and analysts. He discussed not only the results but the rationale behind the BP Minerals acquisition.

The involvement of not only Strachan but now Birkin in regular visits to the US to meet investors and analysts was one of the main issues which exercised the collective mind of the RTZ board. "The board didn't want Strachan, Birkin and Naylor in the US flogging RTZ with no return to us," says Strachan.

But, he says, the company's objectives are clear and limited. Over the medium-term (five years), RTZ wants to build up its US shareholding to about 10 per cent of its market capitalisation. "The shareholder register will not change overnight; it is a long-term exercise."



"IN THE long run it will be the right thing to have done, but this long run will be quite long." So says Alan Clements, finance director of ICI, about the company's listing on the Tokyo Stock Exchange.

Japanese investors are among some of the most parochial in the world.

A company's sponsoring broker in Tokyo – usually one of the big four, Nomura, Daiwa, Yamaichi or Nikko – will organise a positive response to listing on the first day. The share price will rise and trading will be quite active, but after that most UK companies have found the stock issued flows back to London.

When ICI listed in Tokyo in December 1988, Japanese investors owned 1.25m ICI shares. Today they own about 100,000 shares.

This stands in marked contrast to the behaviour of US investors who have been willing and interested holders of ICI's shares since it regularised its status in New York in 1983. (ICI's shares had been traded by a small bunch of devotees in New York since the early 1930s.)

ICI's Japanese experience – known as 'flow-back' – is depressingly similar to the 18 other UK companies which have listed on the TSE since 1986 and many of the 100 other foreign companies which have their shares traded in Japan.

Flow-back defeats one of the main purposes for listing on foreign exchanges: the desire for a wider geographical spread of share ownership. It also has undesirable effects on a company's share price when the shares issued for Japanese investors get sold back to London.

Although Ian Strachan, RTZ's finance director, is acutely aware of these problems, he says RTZ still wants to establish Japanese investor interest in its stock. A listing is not being actively considered and thought is being given to other possible ways of achieving the company's aim.

Management abstracts

Employee surveys – filling the gap in management information systems. *P Saul in Asia Pacific HRM (Australia), Nov 89 (13 pages)*

Lists the reasons for undertaking an employee survey, eg to provide information on how employees are likely to react to a planned organisational change; identifies the problems associated with surveys, inter alia, employee suspicion about their 'real' purpose; considers trends influencing the use of surveys, such as a growing belief that people are a company's greatest asset. Presents guidelines for conducting a survey, warning that it must be part of the management information and control system and not a one-off exercise.

The moral muteness of managers. *F B Bird + J A Waters in California Management Review (US), Autumn 89 (16 pages)*

Highlights the reluctance of many managers to admit that they are acting morally, even when they are are; instead they talk as if their actions are guided exclusively by business interests. Examines reasons why this should be – citing the threat to organisational harmony and efficiency and to images of power and macho management – and looks at the consequences. Discusses ways in which change interventions leading to greater openness in discussing moral issues, can be encouraged.

Putting customers first. *K Bertrand + R Kearns in Business Marketing (US), Dec 89 (5 pages)*

Presents two examples of companies committed to measuring and improving customer service/satisfaction. GTE Telephone Operations conducts customer surveys to monitor perceptions of various service attributes. GTE found that high-quality service can be traded off through higher prices; it uses customer satisfaction measures for assessing managerial compensation (up to 35 per cent). The second case, Sonoco, a packaging supplier, has developed a 'relative perceived quality survey', essentially a monitoring system by which customers describe their ideal supplier and then rank attributes as to how they expect suppliers to perform.

These abstracts are condensed from the abstracting journals published by Anbar Management Publications. Licensed copies of the original articles may be obtained at a cost of £5 each (including VAT and p+p; cash with order) from Anbar, 62 Toller Lane, Bradford, West Yorkshire BD8 9BY.

COMPANY NOTICES

ROBECO

ROBECO N.V.

Further to the announcement published in The Times and The Financial Times on 17 April 1990 concerning the Cash Dividend payable 27 April 1990 the rate of exchange for the payment of this dividend on both Robeco N.V. Ordinary Shares of Fls 10 (at Fls 3.32) and Sub-Shares registered in the name of National Provincial Bank (Nominees) Limited (at Fls 0.332) is Fls 3.0950 = £1.

UNITED KINGDOM RESIDENTS

The gross dividend is £1,07269790 per Ordinary Share of Fls 10 (Coupon No 69) and is subject to the following deductions:-

15% Netherlands Tax	-	£0.16090468 per Share
10% United Kingdom Tax	-	£0.10726979 per Share
Net Payment	-	£0.80452343 per Share

NON RESIDENTS OF THE UNITED KINGDOM

Where 25% Netherlands Tax is applicable, the following deductions apply:-

25% Netherlands Tax	-	£0.26817447 per Share
25% U.K. Tax on Net Dividend (When Applicable)	-	£0.20113086 per Share
Net Payment	-	£0.60339257 per Share

Dividend entitlement on the Sub-Shares will be paid at one tenth of the above amounts, less M.N. commission of £0.00134087 per Sub-Share.

Where 15% Netherlands Tax is applicable the calculations are as for United Kingdom Residents, but relief from United Kingdom Tax is immediately obtained provided that the appropriate Inland Revenue Affidavit is lodged with the claim.

ROLINCO

ROLINCO N.V.

Further to the announcement published in The Times and The Financial Times earlier this week concerning the Cash Dividend payable 27 April 1990 the rate of exchange for the payment of this dividend on both Rolinco N.V. Ordinary Shares of Fls 10 (at Fls 1.80) and Sub-Shares registered in the name of National Provincial Bank (Nominees) Limited (at Fls 0.180) is Fls 3.0950 = £1.

UNITED KINGDOM RESIDENTS

The gross dividend is £0.58158320 per Ordinary Share of Fls 10 (Coupon No 31) and is subject to the following deductions:-

15% Netherlands Tax	-	£0.08723748 per Share
10% United Kingdom Tax	-	£0.05815832 per Share
Net Payment	-	£0.43618740 per Share

NON RESIDENTS OF THE UNITED KINGDOM

Where 25% Netherlands Tax is applicable, the following deductions apply:-

25% Netherlands Tax	-	£0.14539580 per Share
25% U.K. Tax on Net Dividend (When Applicable)	-	£0.10904685 per Share
Net Payment	-	£0.32714055 per Share

Dividend entitlement on the Sub-Shares will be paid at one tenth of the above amounts, less M.N. commission of £0.00072897 per Sub-Share.

Where 15% Netherlands Tax is applicable the calculations are as for United Kingdom Residents, but relief from United Kingdom Tax is immediately obtained provided that the appropriate Inland Revenue Affidavit is lodged with the claim.

LEGAL NOTICE

NO. 002293 OF 1990

IN THE HIGH COURT OF JUSTICE
CHANCERY DIVISION
IN THE MATTER OF PARKFIELD GROUP PLC
AND
IN THE MATTER OF THE COMPANIES ACT 1985

NOTICE IS HEREBY GIVEN that a Petition was on the 22nd March 1990 presented to Her Majesty's High Court of Justice for the confirmation of the cancellation of the Share Premium Account of the above-named company as at the 15th day of August 1989.

AND NOTICE IS FURTHER GIVEN that the said Petition is directed to be heard before the Honourable Mr. Justice Vinelott at the Royal Courts of Justice, Strand, London, WC2A 2LL on Monday 30th day of April 1990.

ANY creditor or shareholder of the said Company desiring to oppose the making of an Order for the confirmation of the said cancellation of the Share Premium Account of the Company should appear at the time of hearing in person or by Counsel for that purpose.

A copy of the said Petition will be furnished to any such person requiring the same by the undermentioned solicitors on payment of the regulated charge for the same.

Dated this 20th day of April 1990.

Wilde Sapte, Queensbridge House
60 Upper Thames Street, London EC4V 3BD

Solicitors for the above-mentioned Company.

ARTS

Arts Week

F	Sa	Su	M	Tu	W	Th
20	21	22	23	24	25	26

EXHIBITIONS

London

The Tate Gallery. The entire permanent collection has been rehung so that the visitor may now take a natural circuit through the newly restored galleries, from 16th century British painting through to the the most recent of modern international art. It is a curatorial triumph.

Paris

Grand Palais. Soliman Le Magnifique. A treasure trove of goldsmiths' work, miniatures, ceramics and textiles recalls the splendour of the reign of Soliman "the shadow of god on earth", whose Ottoman Empire stretched in the 16th century from the Caucasus to the gates of Vienna and from Algeria to the Persian Gulf. Closed Tue, Wed late closing, ends May 14 (42895410).
Musée d'Orsay. The Fragmented Body. Parts of the human body, or the incomplete body form the leading strand of an exhibition-beginning with ex-votos and reliquaries and culminating ina celebration of Degas, Bourdelle, Maillol and especially of Rodin with his masterly transition from realistic to abstract sculpture. Ends June 3, closed Mon, entrance Quai Anatole France (40494814).
Centre Georges Pompidou. Pavel Nikolaievitch Filonov. A solitary-figure of the Russian avant-garde, he refutes cubism and futurism as contrary to nature's – and art's – organic development. "Every atom" of the surface of the 50 paintings and 150 drawings is given intense attention and basks in the light of idyllic harmony in cruel contrast to his own destiny. Closed Tue, ends April 30 (42771233).
Musée Carnavalet. Antique bronzes. Some 400 statuettes bring to life the Gallo-Roman world up to the 5th century. They are grouped in glass-cases around a divinity surrounded by objects of the appropriate cult. Closed Mon, ends July 1 (42722113).
Musée d'art Moderne de la Ville de Paris. Kees Van Dongen. 132 works retrace the career of the painter who, as one of the *Fauves* enjoys provoking the public with daring juxtapositions of violent colours, charcoal contours and green shadows. The Dutch-born artist goes further and shocks with erotic subjects and poses, only to subside later into portraiture of the elegant and famous. 11, Ave President Wilson, Closed Mon, late closing Wed. Ends June 17 (47236127).
Grand Palais. Pre-Columbian art in Mexico (1500bc – 1521ad). Some 130 exhibits from Mexico's archeological museums bear witness to the high degree of artistic development of the ancient civilisations of the Mayas and Aztecs. A deep religious sense imbues their imaginary world peopled with divinities often represented as jaguars and serpents. Closed Tue, late closing Wed. Ends July 30 (42895410).

Brussels

Musées Royaux D'Art et D'Histoire. The Enigma of the Easter Islands is partially deciphered in this exhibition of photographs and artifacts. Closed Monday, ends April 29.
Musee d'Art Moderne. Retrospective of the Belgian abstract/expressionist artist Englebert Van Anderlecht (1918-1961). Closed Monday, ends May 13.

Ghent

Museum voor Schone Kunsten. Flemish Expressionism in a European Context (1900-1930) with works by De Smet, Ernst, Permeke, Van den Berghe and Zadkine. Closed Monday, ends June 10.

Antwerp

Museum van Hedendaagse Kunst. Beeldenstorm...Anno 1990 – Contemporary Dutch Artists. Closed Monday ends April 29.

Venice

Palazzo Grassi. Andy Warhol Retrospective. 250 works from the major exhibition organised by Kynaston McShine for the Moma in New York last spring, to which have been added about a dozen from private Italian collections. The show has since toured Chicago, London and Cologne, to end its tour at the Beaubourg in Paris this summer. Opening with Dick Tracy (1960) and closing with Warhol's version of Leonardo's Last Supper, done shortly before his death in 1987, the exhibition concentrates on the early works, 1960-1967, and the famous Marilyn, Liz and Coca-Cola series are shown to excellent effect in a particularly skilful layout by Gae Aulenti, in collaboration with Pontus Hulten. Until May 27.
Museo Correr. Jacopo Palma il Giovane (1548-1628). On show for the first time is one of the two albums of Palma drawings owned by the 18th century collector Anton Maria Zanetti (the other is in the British Museum) recently acquired by the museum, together with a selection of paintings, mainly of biblical and mythological subjects. Ends April 29.

Rome

Braccio di Carlo Magno in Piazza San Pietro: Michelangelo and the Sistine Chapel. This exhibition marks the end of a 10-year stint by Vatican restorers on the ceiling of the Sistine Chapel and the beginning of an estimated further four years' work on The Last Judgment. Remarkable for the exceptionally generous opening hours (open every day except Wed and on Sat from 9.30am to 11.00pm) and handsome catalogue as well as a rich collection of drawings by Raphael, Rubens, Annibale Carracci, showing clearly Michelangelo's powerful influence, the exhibition also carefully documents the techniques used and the difficulties encountered by the restorer. Particularly interesting is the 1541 copy of The Last Judgment, by Marcello Venusti, lent by the Capodimonte Museum in Naples, showing the brilliance of the original colours and the figures in their pre-draped glory. Ends July 10.

Madrid

Museo Arqueologico Nacional. Art in the court of Naples in the 18th century. Different examples of art including paintings, sculputure, furniture, porcelain and tapestries produced during the reigns of two bourbon kings: Charles III and his son Ferdinand IV. Ends May 6.
Fundacion Caja de Pensiones. Conceptual art: a perspective. Overall view of this relatively unknown movement which is nevertheless continually nourishing contemporary art production. Works range from mid-60s to early 70s. Ends April 29.

Barcelona

Museo Picasso. Cubist works belonging to the National Gallery of Prague – Kramar Collection. The show includes 17 paintings by Picasso together with an important selection of works by Czech and French artists. Ends April 29.

Saarbrücken

Moderne Galerie. Growing on the Move. Retrospective of Paul Klee (1879-1940) in honour of the 50th anniversary of his death with around 190 oil paintings, water colours and drawings from all periods, to be seen until May 27. This is one of the most comprehensive Klee exhibitions ever.

Vienna

Kunstsforum. Works by the Romantics, ranging from Caspar David Friedrich to Adolph Menzel.
Museum für Volkerkunde has a marvellously exotic exhibition called Jemen, focusing on the world around the Queen of Sheba. Ends June 10.

New York

New York Public Library. More than 125 documents of the Abolitionist Movement, including photographs, letters and rare books, display the spirit and drive of the long effort to free the slaves. Ends Sept 15.
Jan Krugier Gallery. Graphics from the Marina Picasso Collection are on display under the title Picasso's Women. Until April 28. 41 E. 57th (755 7288).
Museum of Modern Art. In its serious, thorough way the museum gives its version of the history of photography, showing off earlier image-developing techniques along with 275 photographs. Ends May 29.

Washington

National Gallery. A joint Soviet-American collaboration brings together Matisse's fruitful and arguably pivotal work in Morocco during his visit in 1912-13 including 23 paintings and 45 drawings, among them the famous Moroccan Triptych from the Pushkin Museum, never before exhibited in America. Ends June 3.
National Museum of Women in the Arts. The first major retrospective of the work of Dame Elizabeth Frink includes 60 sculptures and 25 drawings, including monumental bronze casts of male figures, portraits and animals in characteristic roughly textured heroic poses. Ends July 4.

Chicago

Chicago Historical Society. The Land of Lincoln does its most famous citizen proud in the exhibition A House Divided. America in the Age of Lincoln, with documents, mementoes and personal effects of the Great Emancipator.
Chicago Historical Society. A special exhibit of Frank Lloyd Wright's designs for art-glass windows, furniture and silver shows why the details completed the Wright look. Ends June 17.

Tokyo

Tokyo National Museum. National Treasures of Japan. Painting, sculpture, calligraphy, craftwork, archaeological artefacts, from prehistoric times to the Edo Period.
National Museum of Western Art. Bruegel and Dutch Landscape. 58 paintings on loan from the National Gallery in Prague. The centrepiece is Pieter Bruegel the Elder's magnificent Haymaking, with its wealth of circumstantial detail, and the focus is on the development of landscape painting as a genre from its beginnings in about 1500 to the mid 17th century. Closed Mondays.

OPERA AND BALLET

Paris

Paris Opera. *Swan Lake* in Nureyev's choreography after Petipa and Ivanov with the Paris Opera Orchestra conducted by David Coleman and Michel Queval (47425371).
Théâtre de la Ville. Carolyn Carlson dances in *Light* performed for the first time, where she uses mythology to describe her quest for spiritual serenity (42742277).

Milan

Teatro alla Scala. Liliana Cavani's production of *La Traviata* opens this week, with Tiziana Fabbricini as Violetta and Roberto Alagna as Alfredo, conducted by Riccardo Muti. (80.91.26).
Teatro Nuovo. Luciana Savignano and the Scala Ballet Company dancing Robert North's *La Jeune Fille e la Mort*, Ben Stevenson's *Three Preludes* and Fokine's original version of *Les Sylphides*, adapted by Lynn Wallis (78.12.19).

Rome

Teatro dell'Opera. Franz Lehar's *Merry Widow* in a new and lavish production by Mauro Bolognini conducted by Daniel Oren. Raina Kabaivanska and Daniela Mazzucato lead the cast. (46.17.55).

Barcelona

Gran Teatre del Liceu. Friedrich Haider conducts Richard Strauss's *Ariadne auf Naxos* in a production by the Oper der Stadt Koln. Cast includes Mechthild Gessendorf and Edita Gruberova. (318 92 77).

Brussels

Theatre Royal de la Monnaie. The Monnaie Opera in a new production of Wagner's *Lohengrin* (Fri, Sat).

Berlin

Opera. *Katja Kabanowa* is conducted by Jiri Kout with Karan Armstrong, Ruthild Engert, Patricia Johnson, Warren Ellsworth and David Griffith. *Hoffmanns Erzählungen* in Gian Carlo del Monaco's production has fine interpretations by Faye Robinson, Neil Shicoff and Michael Burt. *Fidelio* stars Gwyneth Jones.

Hamburg

Opera. *Romeo et Juliet* has John Neumeier choreography. *Arabella*, expertly conducted by Heinrich Hollreiser, has a strong cast led by Lucia Popp, Olive Fredricks, Hellen Kwon, Dieter Weller and Knut Skram. Harry Kupfer's controversial new *Tannhäuser* production is well sung by Guenter Neumann in the title role, Linda Plesch, Waltraud Meier and Andreas Schmidt. Further performances of *Faust's Verdammnis*, sung in French with Delores Zeigler, Keith Lewis, Jean-Philippe Lafont and Harald Stamm. *Fidelio* is conducted by Nikolaus Harnoncourt with a cast including Ana Pusar, Josef Protschka, Kurt Moll and Matthias Hoelle.

Cologne

Opera. *Manon Lescaut* has Ljubov Kazarnoskaya in the title role. The Deutsche Oper am Rhein ballet dances *Giselle*.

Frankfurt

Opera: William Forsythe's successful ballet *Limb's Theorem* is again offered this week. Schoenberg's *Moses and Aron*, produced by Herbert Wernicke, conducted by Frankfurt's musical director Gary Bertini, will have its premiere this week, with Gerhard Faulstich as Moses and William Cochran as Aron. *Ariadne auf Naxos* convinces thanks to Helena Doese, brilliant in the title role.

Stuttgart

Opera. Philip Glass's opera *Achnaton*, composed for the Stuttgart Opera, is a deliberate break from the American tradition, not only in its choice of the young Egyptian pharaoh as main figure but also in the corresponding use of African and Asian musical forms. The title role is excellently sung by the counter-tenor Paul Esswood. Also offered *Tosca*. *Lohengrin* with Eva Randova and Toni Kraemer, as well as a Ulrike Sonntag Lieder recital.

Munich

Opera. *Salome* in August Everding's production has first-rate cast led by Brigitte Fassbaender, Josephine Barstow, James King, John Broecheler. Von Einem's rarely played Dantons Tod proved a sensation when it opened in Johannes Schaaf's production with Annegeer Stumphius, Maria Hausmann, John Broecheler and Alejandro Ramirez. Guest ballet performance of the Lausanne Béjart group.

New York

Metropolitan Opera. The week includes a complete series of performances of James Levine conducting Otto Schenk's production of the Wagner *Ring* Cycle, but starts with *Götterdämmerung*, completing the first of the three cycles this season, and starts over with the second performances of *Das Rheingold*, *Die Walküre* and *Siegfried*. James Levine also conducts the last seasonal performance of Franco Zeffirelli's new production of *Don Giovanni* with Carol Vaness and Samuel Ramey, Karita Mattila and Jerry Hadley. Julius Rudel conducts John Cox's production of *Il Barbiere di Siviglia* with Kathleen Battle and Jon-Henrik Rootering. Opera House at Lincoln Center (362 6000).
New York City Ballet. With a repertory still heavily steeped in Balanchine, the company features a festival of Jerome Robbins's ballets in the middle of the season, which lasts till July 1. New York State Opera House, Lincoln Center (870 5570).

Washington

Rudolf Nureyev Farewell Tour. Charles Jude and members of the Paris Opera Ballet and Royal Ballet join Nureyev in a mixed programme (Mon). Kennedy Center Concert Hall (467 4600).

THEATRE

London

Anything Goes (Prince Edward). Cole Porter's silly ocean-going 1930s musical has four or five marvellous songs and Elaine Paige failing to emulate Ethel Merman. Jerry Zak's desperately bright production comes from the Lincoln Center in New York and is undemanding fare (734 8951, cc 836 2428).
Jeffrey Bernard is Unwell (Apollo). Tom Conti has taken over as the alcoholic journalist who embodies a Falstaffian, nay-saying life force while committing public suicide by vodka. Keith Waterhouse has stitched a fine play, the season's highlight, from Bernard's own writing. Ned Sherrin directs. (437 2663).
Another Time (Wyndham's). New Ronald Harwood play, directed by Elijah Moshinsky, about a white South African family in Cape Town and Maida Vale. Albert Finney plays father and concert pianist son across 35 years, suggesting that talent is a means of escape and a reason for not going back. (867 1116).
Aspects of Love (Prince of Wales). Andrew Lloyd Webber's latest. (839 5972).
Shadowlands (Queen's). Four-tissue weepie about the love affair between crusty Oxford writer C.S. Lewis and the cancer-riddled American poet Joy Davidman, which pushes Nigel Hawthorne and Jane Lapotaire into the awards stakes. (734 1166).

New York

Cat on a Hot Tin Roof (Eugene O'Neill). Kathleen Turner, whose statuesque good looks embody Tennessee Williams' vibrant character Maggie, is surrounded by an excellent supporting cast in Howard Davies' production.
Grapes of Wrath (Cort). The Steppenwolf company's interpretation of the Steinbeck epic novel has taken a long time to reach New York from Chicago; the wait was worth it, with the 1930s brought alive in its squalour as well as its test of human strength.
Heidi Chronicles (Plymouth). Wendy Wasserstein's award-winning drama covering 20 years in the life of a successful American baby boomer goes from support for Eugene McCarthy's presidential aspirations to electoral ambitions in the 1980s, accompanied by the *musical and emotional* flavour of the period (239 6200).
Gypsy (St James). This 30th anniversary production does more than revive a rich, vivid musical; it also introduces a new belter in the Merman tradition, Tyne Daly, as the bossy, tireless and tuneful Rose, who shamelessly leads her daughter into burlesque while rejecting a personal life for herself (246 0102).
Grand Hotel (Martin Beck). Tommy Tune, Broadway's present musical doctor, directs this remake of the Garbo film to at least shake the bones of this inert depiction of lives crisscrossing in an elegant, but somewhat random setting (246 0102).
Sweeney Todd (Circle in the Square). An intimate production of the Sondheim-Wheeler musical in contrast with the elaborate original a decade ago emphasises the descent into madness of Bob Gunton as the demon barber of Fleet Street (239 6200).
Cats (Winter Garden). Still a sell-out, Trevor Nunn's production of T.S. Eliot's children's poetry set to music is visually startling and choreographically feline (239 6262).
Les Misérables (Broadway). The magnificent spectacle of Victor Hugo's majestic sweep of history and pathos brings to Broadway lessons in pageantry and drama (239 6200).
Phantom of the Opera (Majestic). Stuffed with Maria Bjornson's gilded sets, Phantom rocks with Andrew Lloyd Webber's haunting melodies in this mega-transfer from London (239 6200).

Washington

The Cemetary Club (Eisenhower). Elizabeth Franz, Eileen Heckart and Doris Belak star in new playwright Ivan Menchell's comedy of three widows who meet monthly to visit their husbands' graves. Ends April 29 (467 4600).

Chicago

Uncle Vanya (Goodman). Michael Maggio directs John Mahoney in David Mamet's new adaptation of the Chekhov classic. Ends May 26. (443 3800).
Steel Magnolias (Royal George). Ann Francis and Marcia Rodd play the leads in this view of southern life from under the dryers in a busy hairdressing establishment (988 9000).
I'm Not Rappaport (Briar St). Shelley Berman, one-time standup comic, now plays Nat, Herb Gardner's memorable Central Park character who gags his way through the 1986 Tony Award winner (348 4000).
The Good Times are Killing Me (Body Politic). This City Lit production of Lynda Barry's first play captures an American childhood with poignant zaniness (871 3000).
Elliott Loves (Goodman Studio). Director Mike Nichols teams up again with writer Jules Feiffer to explore middle-aged love with the eponymous hero, who makes the mistake of introducing his new love to his old friends. Ends May 13. (443 3800).

Tokyo

Kabuki. Kabuki-za (541 3131): two lavish mixed programmes (11am, 4.30pm) to mark the 50th anniversary of the death of the great Kabuki actor Utaemon V. Among those appearing is his son, 76-year-old Living National Treasure Utaemon VI. The highlight of the evening programme is Kago Tsurube, a famous 19th century play about a country bumpkin who falls in love with a courtesan, with tragic results. Excellent earphone guide in English and English-language programme. Ends April 25.

Colourful days in Dublin

Patricia Morison reports on the rehang taking place at the National Gallery of Ireland

There is change in the misty air of Dublin, and the 1990s promise to be an important decade for lovers of the fine arts. Last week I visited the National Gallery of Ireland to see the half-way results of the gallery's refurbishment programme, which has so far cost £1.5m. The rehung galleries were unveiled last month to mixed reactions, but Director Raymond Keavening is unrepentant about "maybe going over the top."

Italian Primitives hang on anaglyptic walls of lime yellow, Flemish masters hang on scarlet, there are rooms of Prussian blue, lime-green, and crimson. However, it is the Irish galleries which are the focus of debate. To the Gallery's *habitués*, James O'Connor's quietly verdant landscapes and the furious palette of Jack Yeats probably do look rather different these days. Before they were seen on dirty grey damask. Now they are on intense "Veronese green," as Keavening describes it. But then, half the value of a rehang is to make people look and think again.

Paintings are no longer double hung, which means that rather more of the National Gallery's collection of 2,500 paintings is now in storage. Fine Italian carving on the doorways has been restored and awful radiators in the centre of rooms have been cased. Five massive Waterford Glass chandeliers hang in the original Sculpture Gallery. Its opulent decor of pale tangerine particularly suits Reynolds's portrait of the Earl of Bellamont, a ridiculous fop with a forest of ostrich plumes on top of his silly head.

Light and opulence impressed visitors to the National Gallery when it opened in 1864. It was built by Captain Francis Fowkes, an architect-cum-engineer. Fowkes was sent from London to rescue the project from Sir Charles Lanyon, an Irish architect with ideas considerably larger than the budget. Fowkes created the first gas-lit public collection, with Irish harps on the plaster work and maroon walls.

At first the new Gallery had almost no pictures and a tiny budget. This may have been the reason for an early purchase of splendid 17th-century Italian paintings, notably two beautiful Giovanni Lanfancos – they cover a lot of wall. The collection expanded under Directors kept permanently short of cash, so they bought many top-of-the-second division artists. It adds to the charm of the Dublin collection that it includes so many unfamiliar, and sometimes mysterious, pictures.

What, scholars have wondered, is going on in a Rembrandtesque interior which shows men playing a parlour game? It could show a game called *La Main Chaude* which was crude even by the standards of 17th-century horseplay. In which case, others object, surely there should be women in the picture? There is mischief, too, in Godfried Schalken's *The Lost Daughters*. A woman bears her breast and people peer to see that, yes, she has a mole beside her nipple. I also particularly liked a 15th-century century panel by Nicholas Francis of St Jerome translating the Bible with three exhausted scribes slumped in front of him.

The Dublin collection has had its share of wavering attributions: A Titian "Ecce Homo," cruelly cleaned in the 1950s and thought to be by lesser artists, is now generally and enthusiastically ascribed to the master. The "St Francis" by El Greco, presented by Sir Hugh Lane during his Directorship, is also now regarded as an autograph work. Most recently, Rembrandt's only nocturnal landscape, a "Rest on the Flight," has passed muster with the Rembrandt Research Project.

Money remains tight at the National Gallery. Irish paintings have become expensive and the Gallery's purchase grant is a modest £90,000. However, the statue of George Bernard Shaw on the lawn reminds visitors of his love for the Gallery. For 50 years after his death (i.e. until 2000) the Gallery receives one third of his royalties, a sum which varies between £150,000 and £200,000 per annum.

From a state of serious dilapidation, the 1864 and 1903 wings have been made shipshape. The roofs are mended, there is new lighting, fireproofing, security and storage facilities. Now the 1968 wing needs complete internal reconstruction, costing £5 million. Connoisseurs of 1960s horror stories will not be surprised to hear that the wing has worn badly. The building is thin-skinned, badly lit, and stained hessian on the walls did nothing for the paintings. It became "a terrible embarrassment" and even damaging to the exhibits.

Keavening is one Dubliner who sees the good side of the limousines with blaring police escorts which ferry EC diplomats every few minutes into Merrion Square. Ireland's Presidency of the EC was a powerful card in persuading the exchequer to fund the Gallery's renovation. The calendar has been kinder still; in 1991 Dublin will be the Cultural Capital of Europe.

Even so, and despite funds from the state lottery, money is a more urgent preoccupation than ever. Keavening dreams of an Irish patron equivalent to the Sainsburys, for here is another National Gallery with a splendid site to develop. This week the gallery acquired an adjoining site of 10,000 sq ft, fronting onto Clare Street, from the British developers Ryde International. Keavening frankly admits that he does not know where money for the extension will come from. In Ireland business sponsorship of the arts is at present small-scale.

The EC effect may also be responsible for another cultural development. The Irish government has committed itself to establishing The Irish Gallery of Modern Art, planned to open next year in the Royal Hospital at Kilmainham. The Director wil be Declan McGonagle, nominated for the Tate Gallery's Turner Art Prize in 1987 for his work at the Orchard Gallery in Derry. Sir Sidney Nolan has promised a large donation of his work and Mr Gordon Lambert, an Irish businessman, has also donated part of his collection of modern art.

The government restored the Royal Hospital at a cost of £21m as a convention centre for the EC Presidency. It was then said to be too far from the centre of Dublin, which may bode ill for a major gallery. Critics also object that the rooms at the Royal Hospital are too small for even moderately large canvasses. But if you are in Dublin with an hour to spare, take a taxi to the Royal Hospital. Modelled on Les Invalides, it was created by Charles II in 1679 to offer army veterans "a comfortable Retreat and Maintenance." It is a wonderfully elegant grey stone building round a quadrangle and surrounded by gardens and fields. At the moment the Royal Hospital is used for banquets, concerts, and artistic events. Its future is one more enticing prospect for Dubliners to ponder.

Now authenticated: El Greco's "St Francis receiving the Stigmata"

Tancredi

GRAND THEATRE, GENEVA

Born Rossinians are a rare breed: all the more reason, then, to welcome Anne-Sofie von Otter to the fold. Having previously proved her distinction in Mozart and the late Romantics, Miss von Otter has now launched herself into the bel canto repertoire in the title role of *Tancredi* at Geneva. Her performance, broadcast from the Grand Theatre last weekend on Radio 3, was of the kind that instantly stirs visions of all the other heroic mezzo roles in Handel and Rossini she will undoubtedly adorn in years to come. The way she has husbanded her artistic talent to date has demonstrated unusual intelligence and maturity, and this production clearly marks another staging post in her development.

Even before she sings a note, Miss von Otter bears the incalculable advantage of a handsome stage appearance: her tall, slender profile and magnificent carriage lend a dramatic authenticity to a role hitherto associated with singers of plumper proportions. There is no striving for effect, no gesture or movement that does not seem natural to the almost god-like youthful warrior she is portraying. Even in a trouser role (flowing robes, actually, in this production), Miss von Otter never looks less than attractive.

These qualities are amply reflected in her singing, which benefits from a Mozartian nobility of tone, clear diction and composure. She has that rare gift of evenness throughout the range, an ability to combine feeling with absolute respect for note values. At present the voice sounds under-projected in the theatre, an impression encouraged by the lack of a final flourish in her arias. The temperament is also a shade cool and Northern for a Mediterranean hero like Tancredi. But these are petty complaints when her performance as a whole is so elevating.

Her principal partner was Katia Ricciarelli, a previously admired Amenaide who looked and sounded well below form on this occasion. Raul Gimenez's Argirio acted with dignity and seemed at ease with the suicidal tenor Tessitura. Harry Peeters, Suzanna Guzman and Donna Brown completed a distinguished cast. With Bruno Campanella bouncing up and down in the pit, the music was in safe but less than scintillating hands.

John Copley's staging, borrowed from Chicago, provided an elegant framework and looked well-rehearsed. The decor by John Conklin set the action within a theatre proscenium (closely resembling the Fenice where the work was first performed), filled with a succession of rich Gothic perspectives and drop curtains. Although Rossini's happy original ending is more in keeping with the piece, this production used the tragic alternative he wrote for Ferrara. Anne-Sofie von Otter justified the later version with her sublime vocal acting in the closing scene.

Andrew Clark

The Dybuk

THE PLACE

London Contemporary Dance Theatre is this week presenting a programme of fresh choreography, under the ill-advised title *New Worx*. Of the three pieces on view, two are inconsiderable save in their nuisance value. The third is a version by Kim Brandstrup of the celebrated Jewish play *The Dybbuk*, which tells of the unquiet soul (the eponymous Dybbuk) of a young man returning to claim a girl denied to him in life. In his recent creations Brandstrup – winner of this year's Olivier Award for choreography; a nominee for the *Evening Standard* ballet award – is much concerned with the problems of narrative. His beautiful *Ofeo* for LCDT solved the matter on stylistic terms: baroque conventions supplied the legend's armature. In *Peer Gynt*, despite many felicities, a folk-simplicity seemed too rigorous a manner to carry the burden of Ibsen's characters. In *The Dybbuk* (which he made at the end of last year for his own Arc Dance Company) he has successfully used an invented folk-style to convey the intensity and almost ritualistic progress of the action.

In a brilliant UFA-style set of a grotesquely leaning interior (The Drawing Room of Dr Caligari) by the Brothers Quay, to an accompaniment of Romanian folk-music, we see the heroine, Leah, prepared by her family for an arranged marriage. Haunting her is the ghost of her earlier love, Channon. Through the most direct means, with repetitions of movement, mimetic austerities, Brandstrup builds up tension to the moment when Channon finally possesses Leah. There is, until the very last, little that is overtly dramatic or hysterical. There is, instead an inevitability and a developing sense of unease (admirers of Shirley Jackson's novels will recognise the process) which argues Brandstrup's constant concern for a clear and purposeful narrative language. Channon – well taken by Andrew Robinson – is never frightening in behaviour, but wholly inescapable to Leah (Isabel Mortimer). Amid the shadows of the setting, the drama is unfailingly effective. It is a dance work having a consistent and uncompromising vision, and it is very welcome. There are good costumes by Craig Givens; good performances by the cast; atmospheric extra music by Ian Dearden.

For Aletta Collins' *It's Gonna Rain*, Tom Cairns has transformed the Place's stage area into a joyfully coloured box in primary colours, with a series of doors to left and right. In this arena eight dancers play children's games with limping runs, rushings through doors, tiny bursts of dance (fine, and well done), and hermetic dramas that suggest that the games and the rules are being made up as things go along. Fascinating for three minutes (if you can ignore the insane baying of Steve Reich's vainly repetitious speech tape – the muzak of Hell), the piece becomes insufferable thereafter. There are tiny, vivid moments; they do not compensate for the tape-loop tedium of incidents repeated ad nauseam.

The other piece of the evening, Jo Ann Jensen's *Noon Talk on Millionth Street* is inexplicable. (I need only observe that Millionth Street runs between Angst Avenue and Pretentious Place, and that its inhabitants are afflicted with the galloping twitch, to identify the territory). It is danced to a string quartet by Scott Johnson; its cast contains some of LCDT's strongest artists, who deserve a far better address than this.

Clement Crisp

Crow

TRON THEATRE, GLASGOW

The dynamic theatre in the converted church near the old Glasgow Cross begins its build-up to the City of Culture's Mayfest with the first in an astonishing sequence of world premières. Yet to come: a successor to the highly praised +Steamie+ that converts the space into a market; a new Marcella Evaristi; and the latest from Théâtre de Complicité, based on the works of the Renaissance Paduan, Ruzzante, an earthily proletarian comic who may well strike a chord on the Clyde after four centuries.

Meanwhile the Tron has baptised a new auditorium. The Changing House, across a courtyard in what was the theatre wardrobe, seats only 50 and enjoys erratic sightlines from the back, but the bold choice of opener uses the limited space flexibly. The red curtains of the conventional rounded proscenium arch in fact separate us from an unseen audience beyond. Crow, a performer, bows to the invisible applause with his back to us before returning backstage to show how to manipulate the crowd's roar. Soon, with silent piano keyboard and breaking banjo-strings – not to mention bursts of Handelian choruses unpredictably triggered off by touching the prop furniture – it becomes apparent that the form is manipulating *him*.

The theatrical setting (Graham Johnston's design even colours the brick walls a rich red and black) is the framework for a two-man rendering of Ted Hughes' poem +Crow+. In white tie and tails Crow is soon dominated by his double: Douglas Henshall is wide-eyed innocence, Peter Mullan sinister wide-mouthed amusement. The company under Michael Boyd's direction have evolved a series of variations to Hughes' text that exploit the tiny acting space to the full, resources ranging from a string of sausages that represents the divided worm shared between Adam and Eve to a trapeze, surtitles (+àla+ Covent Garden) and screen projections. The result conveys the poet's black trickster at one remove, as it were, an artificial distancing from the work as in the Walton-Sitwell +Façade+; an impression enhanced by Craig Armstrong's music (percussion, harmonium, piano) and the occasional song from Julia Dow, coolly acknowledging the audience as she drifts ethereally on and off. Dark gleams of misanthropy – and misogyny – and a sense of inexorable pitilessness add an authentic whiff of Hughes' original. For those who (to me, inexplicably) complain of the British theatre's subservience to the word, this is an intriguing riposte: a theatrical arabesque, visual curlicues to verbal themes that hold the attention ungrudgingly for 75 minutes.

Martin Hoyle

Le Train Bleu

OAKLAND BALLET, CALIFORNIA

Ronn Guidi, artistic director of the Oakland Ballet in the Bay Area of California, has shown commendable enterprise in his revivals of ballets from Diaghilev's Ballets Russes. In particular, he has been a leading advocate of the work of Bronislava Nijinska. The Oakland Ballet was the first American company to mount both *Les Noces* (in 1981) and *Les Biches* (in 1982), under the direction of the choreographer's daughter Irina Nijinska – Raetz. Nijinska's reputation rests on those two masterpieces.

Other works are more problematical – either difficult to revive or, to be honest, less worth reviving. Of the ballets she choreographed for Diaghilev, the most celebrated after *Noces* and *Biches* was *Le Train bleu* (1924). Subtitled an "opérette dansée," it typified his pursuit of the *dernier cri* during the second decade of his company's existence.

Like *Les Biches* six months earlier, it peopled the stage with the bright young things of the 1920s. The setting this time was a beach on the Cote d'Azur. Jean Cocteau devised the flimsy libretto and the costumes were actual resort wear designed by Chanel, bathing suits and sports clothes. Darius Milhaud provided the score, the decor (dominated by two Cubist beach-cabins) was by the Romanian sculptor Henri Laurens, and a painting by Picasso of two monumental female figures running on a beach was enlarged for the drop curtain.

Although the more conservative element of the Ballets Russes audience found the ballet frivolous, it was a big hit in Paris and especially in London. Frederick Ashton saw it there and said years later, "it was extraordinary the way Nijinska brought the modern world on to the stage."

The chorus of "tarts and gigolos" put on dark glasses and went into slow motion to watch the passage of an airplane overhead, scattering leaflets. Later; they produced box-cameras to snap the celebrities on the beach. The original inspiration for the ballet was Anton Dolin's ability to perform various acrobatic stunts, such as single-handed handstands and cartwheels, which Nijinska incorporated into the choreography for his role of the Beau Gosse. When Dolin left the company at the end of the season, Serge Lifar attempted to learn the part, but could not manage these tricks, and the ballet was dropped. (Nijinska staged a new version at the Teatro Colon, Buenos Aires, in 1926.)

Frank W D Ries, an American dance scholar, who has spent many years researching *Le Train bleu* – interviewing Dolin, Lydia Sokolova, Leon Woizikowski, and other dancers in the original cast – last year undertook to stage it for Oakland. At first Irina Nijinska tried to prevent this, but after seeing rehearsals changed her mind and agreed to collaborate with Ries on the reconstruction. With choreography credited as "after Nijinska," *Le Train bleu* was performed in Berkeley, California, last November, and again during the company's recent East Coast tour at the State University of New York campus at Stony Brook, Long Island.

The production looks plausibly in the style of Nijinska as we know it from her two great works. The iconography of *Le Train bleu* is extensive, including several full-stage action photographs taken for the *Times*, and these familiar images occur in the revival. Another source for the reconstruction was Cocteau's libretto, which was full of stylistic directions to the choreographer. It seems that Nijinska ignored many of these, and relations between her and Cocteau became strained. He made several last-minute revisions himself, substituting pantomime sequences for some of her dances.

Partly because of this, no doubt, *Train bleu* seems less well integrated than *Biches*, whose neo-classic choreography transcends the triviality of the subject-matter (also originally proposed by Cocteau). The choreography of *Train bleu* is more in the collage-like style of other late Diaghilev ballets: such elements as the acrobatics, exhibition ballroom dances (inspired by the cabaret team of Marjorie Moss and Georges Fontana), newsreel footage of the tennis champion Suzanne Lenglen, postcards and newspaper photographs, exist side by side with movements from the classic ballet vocabulary and Nijinska's characteristic architectonic groupings (such as a pyramid of male bathers).

Ries's exemplary reconstructions of dances from Broadway musicals of the 1920s and '30s doubtless helped in the retrieval of some of this material. *Le Train bleu* was clearly one of those ballets that depended very much on the personalities of its original interpreters, who were never replaced: Dolin, Sokolova as the bathing beauty Perlouse, Woizikowski as the Golfer (after the Prince of Wales), and Nijinska herself as the Tennis Champion. Michael Lowe, Abra Rudisill, Don Schwennesen, and Susan Taylor worked hard and were obviously carefully coached by Irina Nijinska and Frank Ries, but this kind of characterisation does not come easily to contemporary dancers. The corps de ballet sometimes looked as if they were doing "Sur la Plage" from *The Boy Friend*. I can't believe that every woman in the Diaghilev corps wore a kiss-curl in the middle of her forehead.

David Vaughan

ARTS GUIDE

April 20-26

MUSIC

London

BBC Philharmonic Orchestra conducted by Edward Downes, with Neil Jenkins (tenor) and Dennis Simons (violin). Ravel, Sibelius, Szymanowski (Sat). Royal Festival Hall (928 8800).
London Symphony Orchestra conducted by Rafael Frühbeck de Burgos, with Stephen Hough (piano). Beethoven, Brahms (Sun). Barbican Hall (638 8891).
The London Philharmonic conducted by Zubin Mehta, with soloists and chorus. Verdi's Requiem (Sun). Royal Festival Hall (928 8800).
English Symphony Orchestra conducted by William Boughton, with Michaela Fukacova (cello). Parry, Elgar, Dvorak, Vaughan Williams (Mon). Barbican Hall (638 8891).
The Philharmonia conducted by Neeme Järvi, with Yuri Bashmet (viola). Bartok, Walton, Sibelius (Tues). Royal Festival Hall (928 8800).
The London Philharmonic conducted by Zubin Mehta, with Itzhak Perlman (violin). J.C. Bach, Elgar, Stravinsky (Wed). Royal Festival Hall (928 8800).
The Philharmonia conducted by Giuseppe Sinopoli, with Reiko Watanabe (violin). Wagner, Paganini, Berlioz (Thur). Royal Festival Hall (928 8800).

Paris

Ensemble 2e2m conducted by Paul Mefano, Irene Jarsky (soprano). Depraz, Mefano, Ducreux, Eliasson (Tue). Radio France, Grand Auditorium (42301516).
Ensemble Orchestral de Paris conducted by Friedemann Layer, Tatiana Nikolaievna (piano). Martinu, Mozart, Beethoven (Tue). Salle Pleyel (45638873).
Ensemble Mosaiques conducted by Christophe Coin. Haydn (Wed). Théâtre des Champs Elysées (47203637).
Orchestre de Paris conducted by Semyon Bychkov, Pascal Morgues (clarinet). Bizet, Brahms, Franck (Wed, Thur). Salle Pleyel (45630796).
Orchestre National de France conducted by Y. Menuhin. Haydn, Brahms (Thur). Théâtre des Champs Elysées (47203637).

Brussels

Belgian National Orchestra conducted by Ronald Zollmann with Daniel Blumenthal (piano) playing Bizet, Saint-Saens and Tchaikovsky. Palais des Beaux-Arts (Fri).
I Flamminghi Orchestra conducted by Rudolf Werthen in a programme of Bach and Swerts (Sat). Cercle Royal Gaulois.
RTBF Symphony Orchestra conducted by Andre Vandernoot with Stephen Bishop-Kovacevich (piano) perform Beethoven (Sun). Palais des Beaux-Arts.
European Philharmonic Orchestra with the European Community chorus and soloists perform Haydn's Die Jahreszeiten. Palais des Beaux-Arts (Mon).

Antwerp

New Belgian Chamber Orchestra conducted by Jan Caeyers with Jozef De Beenhouwer (piano), Mischa Maisky (cello) and Augustin Dumay (violin). Schumann. (Sat). De Singel.

Berlin

Berlin Philharmonic Orchestra under Gerd Albrecht with the Scharoun-ensemble plays a German premiere by H.Joerns and Beethoven (Wed, Thur). Philharmonie

Milan

Johann Strauss Ensemble conducted by Peter Guth (Tues). Conservatorio G. Verdi (76001755).

Rome

Enrico Camerini (piano). Mozart, Chopin, Liszt and Albeniz (Thur). Teatro Ghione (6372294).

Madrid

Spanish National Orchestra conducted by Witold Lutoslawski, (Fri-Sun). Auditorio Nacional de Musica (337 01 00).
European Community Youth Orchestra conducted by Mathias Bamert, with Salvatore Accardo (violin) and Mario Brunello (cello). Carter, Brahms, Prokofiev (Fri). Auditorio Nacional de Musica (337 01 00).
Berlin State Opera. Soloists, choir and orchestra conducted by Heinz Fricke. Wagner (Sat). Auditorio Nacional de Musica (337 01 00).
Mario Monreal (piano). Beethoven programme (Sat). Fundacion Juan March (435 42 40).
Matthias Fletzberger (piano). Beethoven, Schubert (Tues). Auditorio Nacional de Musica (337 01 00).
Spanish National Choir conducted by Alberto Blancafort. Rachmaninov (Tues). Auditorio Nacional de Musica (337 01 00).
Rosa Torres-Pardo (piano). Prokofiev, Debussy, Gershwin, Stravinsky (Tues). Auditorio Nacional de Musica (337 01 00).
Madrid Symphony Orchestra conducted by Max Bragado, with Carmen Gonzalez (soprano). Morales, Liszt, Granados (Wed). Auditorio Nacional de Musica (337 01 00).
Orpheus Chamber Orchestra of New York, with William Purvis (horn). Haydn, Mozart, Brahms. (Wed). Auditorio Nacional de Musica (337 01 00).
Wiener Streichtrio. Beethoven, Krenek, Mozart (Thur). Auditorio Nacional de Musica (337 01 00).
Rotterdam Philharmonic Orchestra conducted by James Conlon. Mahler (Thur). Auditorio Nacional de Musica (337 01 00).
Berlin Philharmonic Orchestra. Soloists. Bach, Reger, Mozart, Beethoven, Hartmann (Thur). Auditorio Nacional de Musica (337 01 00).

Barcelona

Soviet RTV Orchestra conducted by Vladimir Fedoseev, K. Rodin (cello), Vladimir Ovsinikov (piano). Tchaikovsky programme (Mon). Palau de la Musica Catalana (301 69 43).
Wilbert Hazelzet (flute), **Jaap ter Linden** (viola), **Jacques Ogg** (harpsichord). Bach programme (Tues). Fundacion Caja de Pensiones (317 57 57).
Orpheus Chamber Orchestra of New York. Haydn, Shostakovitch, Brahms (Thur). Palau de la Musica Catalana (301 69 43).

New York

Mieczyslaw Horszowski piano recital. Bach, Schumann, Beethoven Chopin (Mon). Carnegie Hall (247 7800).
New York Philharmonic conducted by Leonard Slatkin with Emanuel Ax (piano). Mozart, Bolcom, Tchaikovsky (Tue); Yuri Temirkanov conducting. Shostakovich (Thur). Avery Fisher Hall, Lincoln Center (874 6770).
New York Choral Society conducted by Robert DeCormier. Verdi (Thur). Carnegie Hall (247 7800).

Washington

National Symphony Orchestra conducted by Lorin Maazel with Yefim Bronfman (piano). Debussy, Saint-Saens, Franck (Tue). Kennedy Center Concert Hall (467 4600).

Chicago

Civic Orchestra of Chicago conducted by Michael Morgan. Shrude, Zappa, Goldstein, Dhamabutra, Corigliano. Orchestra Hall (435 6666).

Tokyo

Chicago Symphony Orchestra, conducted by Daniel Barenboim. Brahms. Suntory Hall (Mon, Thur). Takemitsu, Ravel (Wed). Tokyo Bunka Kaikan (289 9999).
NHK Symphony Orchestra, conducted by Herbert Blomstedt. Tchaikovsky, Larsson (Tues). Suntory Hall (505 1010).
Imogen Cooper (piano). Schubert (Wed). Suntory Hall, Recital Hall (353 2242).
Wiener Oktett. Brahms, Mozart, Furst (Wed). Suntory Hall (289 9999).
Leila Cuberli (soprano). Rossini, Respighi, Berlioz. (Thur) Bunkamura, Orchard Hall (403 8011).

SALEROOM

Furniture makes good

Christie's held a good solid sale of English furniture yesterday which totalled £3,174,270, with a reasonable 13 per cent unsold. The top prices far exceeded expectations, especially the £231,000 (top estimate £100,000) paid for a pair of George III mahogany commodes. They are in the "French commode" style promoted by Chippendale and probably embellished adjoining bedrooms and dressing rooms which reduced the significance of different pilaster ornaments.

A George III marquetry cylinder neo-classical desk, attributed to Ince and Mayhew, and virtually identical to a desk supplied to the Duchess of Northumberland at Syon House around 1775, sold for £220,000, almost four times its forecast. Another lot of unusual design to do well was a pair of George II black and gold japanned armchairs by William and John Linnell made for the 4th Duke of Beaufort for the Chinese bedroom at Badminton House in the early 1750s. They had featured in *The Treasure Houses of Britain* exhibition in Washington in 1985 and went for £198,000.

Another item of noble provenance, a pair of Regency black and gold lacquer and japanned centre tables made for Warwick Castle, doubled the forecast at £148,000 while a George III Harewood, marquetry and parcel-gilt side table, also doubled estimate at £121,000.

Sotheby's is hoping for record £1m for a lot of English silver on May 3 when it offers the Dunham Massey sconces, a set of six George II wall sconces, made in London in 1730 by Peter Archambo. They were made for, and carry the monogram and coronet of, the 2nd Earl of Warrington. They have elaborate designs of mythological scenes and the additional mystery of being offered for sale by "a member of a Royal family."

A motorcycle owned by the late Steve McQueen is to be sold at Sotheby's auction at the Stafford County Showground on April 29th to coincide with the 10th Anniversary International Classic Bike Show. It is a rare 1937 Scott Flying Squirrel mnotorbike and sidecar and is expected to make £25,000. McQueen was a skilled motorcyclist, a talent he used to good effect in the movie *The Great Escape*.

The longest autograph manuscript by Beethoven to be offered at auction for many years appears at Sotheby's on May 17 when the 16 page first movement of his Sonata for Violincello and Piano in A Major comes under the hammer. Bids of up to £500,000 are anticapted.

Antony Thorncroft

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Friday April 20 1990

Europe's road to union

THE JOINT proposal by the French and West German leaders to complement a European Economic and Monetary Union of the Twelve with a political union could not have come at a more significant moment. At a time when the Soviet empire is disintegrating and countries in eastern Europe are reasserting their national identity, here is a proposal which would lead western Europe, at least, in the opposite direction.

Quite apart from rekindling the debate between European federalists and those who want to see a much looser grouping of nation states, the Franco-German plan will be seen by its critics as irrelevant to the vast political and economic problems facing Europe as a whole. When you are trying to build a "European home" embracing both western and eastern Europe, why complicate matters by constructing an exclusive shed at the western end of the garden?

Yet the two projects are far from being mutually exclusive. Indeed, President François Mitterrand and Chancellor Helmut Kohl see them as intimately linked, with greater west European integration a condition of closer ties between the European Community and eastern Europe. The reasoning behind this argument is that, in an increasingly fragmented Europe, there is a need for a cohesive nucleus of prosperous and democratic countries which will act as the motor for the rest of the continent.

Firm anchor

At the root of the Franco-German plan lies the common desire to see a unified Germany firmly anchored in western institutions. It was no secret that President Mitterrand, though his concern was not expressed as vigorously as that of Mrs Margaret Thatcher, was equally worried by the possible consequences of the speed at which German unification was taking place. By proposing to give the European Community a political and security dimension in the near future, the aim of both the French and German leaders is to make sure that West Germany will not abandon its West European partners in favour of eastern ventures.

That is an objective which the British government fully shares and it would be a tragedy if, once again, Mrs Thatcher were to set her face against a development of the Community which is inherent in its foundation charter. Because she does not like terms such as "European union" or "political union," which the Prime Minister fears are code words for the kind of federalist Europe she utterly rejects, she is again likely to have deep reservations about the latest Franco-German project. However, these terms, so loosely employed by European statesmen, do not necessarily mean all that the Prime Minister fears. The history of the Community shows that practically everything is negotiable, including the precise definition of a political union.

Pilot studies

For the moment, all that the French and West German leaders are proposing is that the member countries should launch preparatory studies ahead of an inter-governmental conference on political union which they would "like" to meet in parallel with a similar conference on economic and monetary union before the end of the year. Their objective is that economic and monetary union, as well as political union, should come into effect on January 1 1993 after ratification by national parliaments.

That timetable may well be over-ambitious and is clearly open to discussion. So, too, will be the proposed terms of reference for the studies, which should include, according to Mr Mitterrand and Mr Kohl, a strengthening of the democratic functioning of the Community's institutions and the definition of a common foreign and security policy. Britain would certainly want to bring some precision to this agenda.

What is important is that Britain should be present from the very beginning at discussions which could give a new dimension to the Community's development. The UK's absence from the table would do little or nothing to halt that development. Its participation would ensure that a British stamp would be put on the shape of a European political union.

Mitterrand, the monetarist

WHICH leader of a major, once profligate, country has been most prepared to accept high unemployment in order to rid his (or her) country of the scourge of inflation? Mrs Thatcher, comes the obvious, but wrong, response. The leader who deserves the monetarist palm is Mr François Mitterrand.

Since the policy U-turn of 1983, France has pursued a single-minded disinflationary policy. Naturally, this being France, the policy is presented in mercantilist terms. It is "competitive disinflation," with the principal competitor being its main European partner, West Germany.

The aim of French policy, an aim over which there has been no real dissent in policy-making circles, has been to reduce unit cost inflation below the level of major competitors. From the discussion in the latest OECD report on the French economy, the policy has been remarkably successful. After a decidedly difficult decade, France now seems set to combine growth of 2½-3 per cent a year with low inflation over the 1990s.

The contrasts with the UK are remarkable. In what started off as Mr Mitterrand's Keynesian France, broad money grew by 53 per cent between 1983 and 1989; over the same period, it grew by 142 per cent in Mrs Thatcher's supposedly monetarist Britain.

Mr Mitterrand's Socialist Government allowed real wages to rise by less than 6 per cent between 1983 and 1989, while Mrs Thatcher's allegedly harsh treatment of organised labour produced real wage increases of 20 per cent. Under Mr Mitterrand the unemployment rate rose from 8.3 per cent in 1983, to a peak of 10.4 per cent in 1987, and was still 9.4 per cent in February 1990. Under Mrs Thatcher, the unemployment rate peaked at 11.4 per cent in 1986, but fell quite sharply, to 6.1 per cent in February 1990.

European rivals

France paid a price for this austerity. For the five years, 1982 to 1987, economic growth ran at a compound rate of only 1.6 per cent, when the UK was basking in a rate of growth of 3.3 per cent. The 1980s were, in fact, the first post-war decade when the UK performed better than its European rivals and France performed markedly worse. The 1990s are likely to be rather different.

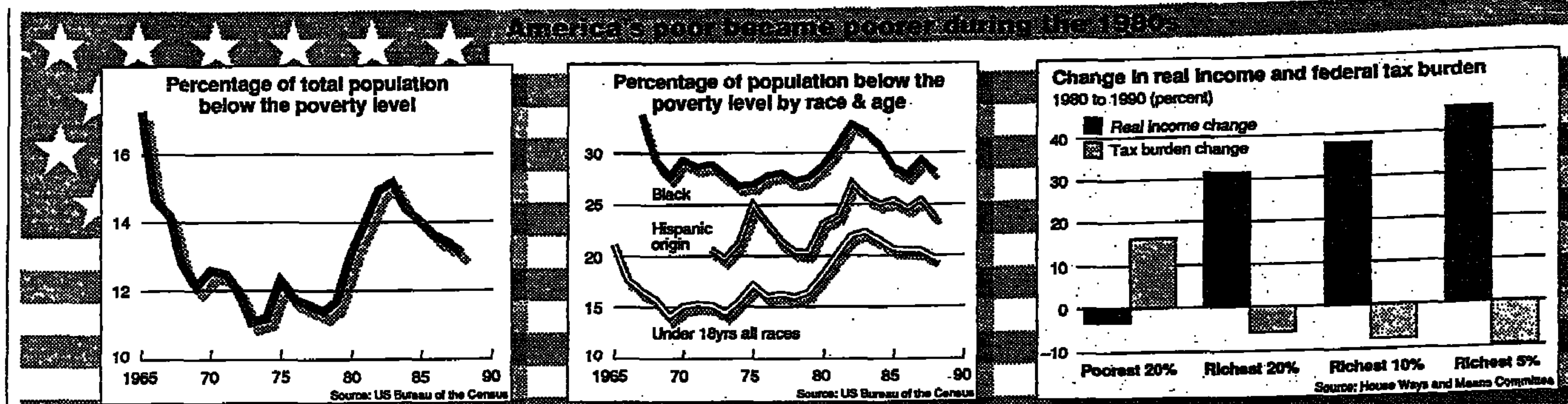
For France has not merely *achieved its objective of low* inflation, but has, unlike the UK, sustained that achievement. The differential in consumer price inflation *vis à vis* West Germany had fallen to only ½ per cent by the end of 1989. With nominal wages rising at less than half the rate in the UK and unit costs in manufacturing falling, France was able to improve its competitiveness against West Germany in both 1988 and 1989.

Nominal stability

Some will argue that these French policies are not monetarist at all. But they have centred on membership of the European Monetary System, through which France has imported the Bundesbank's unquestionably monetarist policies. Furthermore, international monetarism shares with monetarism in one country the conviction that macroeconomic policy must be aimed at nominal stability not real activity.

The most important difference between France and the UK has been one of emphasis: France emphasised stabilisation before liberalisation, while the UK has, in effect, chosen liberalisation over stabilisation. Consequently the tools available to France – notably exchange and credit controls – will not be available to the UK, when it does become a full participant in the exchange rate mechanism of the EMS. Will the policy work without those supports? More fundamentally will the British people, like the phlegmatic, patient French, put up with the years of slow growth that may be required?

Whether the British do succeed in following Mr Mitterrand's example, his disinflationary, mildly liberalising socialism has already proved influential. Mr Felipe Gonzalez is one disciple; Mr John Smith, Labour's Shadow Chancellor of the Exchequer, is another. Perhaps the main policy legacy of the 1980s will turn out to be neither "Reaganism" nor "Thatcherism," but "Mitterrandism".



In the first article in a series on US social problems, **Michael Prowse** examines the legacy of the Reagan years

The not so Great Society

For millions around the world, the American flag is a symbol of an economic and social system that works. No country is more committed to personal freedom and the market economy than the US and no country offers the enterprising individual greater opportunities. In the past decade, the Thatcher Government has not been alone in seeking US remedies for domestic disorders.

But the US socio-economic model is not one to adopt uncritically. While much has gone right for the US in recent years, much has undoubtedly gone wrong. A quarter of a century after Lyndon Johnson launched his War on Poverty, social problems remain acute.

"It's unduly optimistic to say we stood still in the 1980s," comments Henry Aaron, a senior fellow at the *Brookings Institution*, "we went backwards on poverty and homelessness and the distribution of income became dramatically less equal."

Mr Aaron, a liberal (in the US sense), might be expected to criticise the social record of Presidents Reagan and Bush. There is, however, a broad consensus in Washington that a decade of Republican leadership has done little, if anything, to ameliorate deep-seated social disorders.

The most the libertarian right can claim to have achieved is a change in *attitudes: people are more inclined to* distrust the federal government than in the 1960s and 1970s and less inclined to treat welfare payments as an "entitlement." There is much talk of "reciprocal obligations," and a greater willingness to seek state and local solutions to problems.

The cold statistics confirm Mr Aaron's pessimism. There is no evidence that changed attitudes among the middle classes have helped the poor and disadvantaged. President Bush may be calling for a "gentler, kinder America," but the figures suggest the US is steadily becoming a harsher and meaner country.

Take poverty. In 1988, nearly 32m people were below the official poverty line (about $6,000 for a single person) compared with about 24¼m in the late 1970s, when dole queues were of comparable length. As a proportion of the population, the poverty rate has risen from 11¼ per cent to just over 13 per cent. Many more families are classified as "near poor:" the average pre-tax income of the bottom fifth of US families is only 84 per cent of the official poverty threshold.

Nearly a third of all Blacks and more than a quarter of Hispanics are below the poverty line. Children suffer disproportionately. Among Blacks and Hispanics, child poverty is running at 44.2 per cent and 37.9 per cent respectively. Nearly a fifth of *all* American children are officially classified as poor.

The plight of the poor contrasts vividly with the growing prosperity of upper-income families who benefitted greatly from sharp tax cuts under Reagan's supply-side experiment. Ms Anne Lourey Bailey of the Chronicle on Philanthropy points out that the "super rich" – the top ½ per cent of Americans – now own nearly a quarter of all individual wealth. The top 10 per cent may hold nearly 65 per cent of the nation's wealth.

A recent report by the House Ways and Means Committee reveals striking changes in the distribution of income. It estimates that the top 5 per cent of US families will receive 26.2 per cent of pre-tax income in 1990 compared with 21.4 per cent in 1980. The bottom 20 per cent's share will fall from 4.5 per cent to 3.7 per cent over the period. Since 1980 the top fifth have enjoyed a 31.7 per cent increase in real incomes; the bottom fifth are 3.2 per cent worse off.

Growing poverty and inequality are only the tip of the US's social problems. There is a national shortage of affordable housing. "Get off the subway in any American city," says Mr Barry Zigas, head of the National Coalition for Low Income Housing, "and you are stepping over people who live on the streets." He points out that the number of affordable units for rent has fallen sharply in the past decade while the number of poor households has soared.

The upshot is not just increased homelessness (which is estimated at anything from 350,000 to 3.5m people) but chronic overcrowding and severe budgetary strains on the low paid: 45 per cent of poor rental households now spend 70 per cent or more of their incomes on housing and utilities. Nearly a quarter live in housing officially classified as inadequate.

Performance in other areas of social policy is equally dismal. The US remains an exceptionally violent society. The standard of law and order taken for granted in most civilised countries seems unattainable. In 1988, by no means an untypical year, an astonishing 20,680 Americans were murdered: that is one person every 25 minutes. The tally in New York City alone was 1,876. In England and Wales, which has about a fifth of the US's population, there were only 624 homicides in that year.

Drug use among the young may have peaked. But the latest figures are scarcely a cause for celebration. In a recent survey, 3 per cent of high school seniors admitted to using cocaine; 17 per cent said they took marijuana. Moreover, there is evidence that those who are still on drugs are using them more frequently and in larger doses.

Health care also poses apparently intractable problems. Expenditure rose sharply during the 1980s despite efforts to encourage greater competition between doctors and hospitals. The US now spends nearly 12 per cent of GDP on health care – twice as much as the UK and proportionately more than any other industrial country. Yet between 31m and 37m Americans are without any health insurance; many more are under-insured. Nearly half of the poverty population is not covered by Medicaid, the publicly subsidised programme for those on welfare.

Overall health standards are unimpressive: among OECD countries only Portugal and Greece have higher infant mortality rates than the US. In disadvantaged areas, US medical standards are closer to those of the Third

AMERICA'S SOCIAL CHALLENGE

World: in parts of New York, for example, life expectancy at birth is lower than in Bangladesh.

Nor does the US appear able to educate its young effectively. About a quarter of the student population fails to graduate from high school. The drop out rate is alarmingly high among Blacks and Hispanics at 35 per cent and 45 per cent respectively. Few of the young Americans who do complete high school attain worthwhile educational standards.

The problem is not merely that maths, science and literacy scores are low by international standards: few US students seem adequately prepared for everyday life. Tests suggest only 13 per cent of high school graduates can calculate a restaurant tip accurately. A mere 3 per cent can orally interpret distinctions between different types of employee benefits.

Knowledge of American history (let alone world events) is sketchy: for example three out of four high school juniors cannot say when Abraham Lincoln was president. Test scores achieved by college entrants are well below the levels of the early 1960s.

The US thus faces chronic problems across the whole spectrum of social policy. It does not matter whether you look at poverty, inequality, housing, crime, drugs, health care or education: the US is either losing ground or treading water.

Even conservatives are unhappy with the legacy of the 1980s. Stuart Butler, of the Heritage Foundation, admits that the Reagan Administration lacked a coherent social policy. Unlike Lyndon Johnson, the architect of the "Great Society" programmes of the 1960s, Reagan failed to articulate a vision of society: he just strived to cut taxes and curb expenditure. "It was a case of hack first, rationalise later," says Butler.

President Bush's strategy is more subtle: it is to *sound* extremely concerned about social issues, but to do very little. The promotion of voluntary action through the "Points of Light Initiative" illustrates the approach. Every day, except Sundays and holidays, the White House locates a caring individual working for some good cause. The individual receives a personal letter of congratulation and is formally annointed a "Point of Light." The scheme costs almost nothing but generates much publicity – and derision.

On substantive issues Mr Bush appears to be making little progress. The Administration has no strategy for health care reform. On education the policy is to encourage parental choice, set ambitious, but unrealistic, goals (for example that US school children should be "first in the world in maths and science") and shift as much responsibility as possible to state governors. Few observers expect standards to rise significantly.

Mr Bush is pouring money into the fight against drugs and perhaps making a little headway. Responsibility for fighting poverty has fallen to Mr Jack Kemp, the Housing and Urban Development Secretary, who is struggling to implement Thatcherite policies. The Housing Opportunities for People Everywhere programme (HOPE), for example, provides grants and incentives for homeownership among the low paid. Such polices may provide marginal relief but they are not going to correct the fundamental imbalance in the housing market.

Mr Bush, despite his failure to confront domestic problems, is proving an exceptionally popular President. This presents something of a puzzle for Europeans steeped in social democratic traditions. Why do ordinary Americans tolerate a society that is in such disarray? Why is there not much greater pressure for reform?

One answer, admits Isabel Sawhill, the director of the Urban Institute, is that "Americans lead fairly segregated lives." This is especially true of the capital city, where the Black/White divide is almost as clear cut as in South Africa. For middle class Americans living in pleasant suburbs, inner city areas might just as well be part of the Third World: children in East Harlem or South Chicago exert no greater call on the conscience than those in Bolivia or Ethiopia – they are part of "another America."

The second reason for inaction is that the conservative counter-revolution of the 1980s undermined (already fragile) confidence in Great Society type programmes. The problem is that nobody is coming forward with alternatives that look plausible.

"It's a time of real befuddlement," concedes Frank Karel, a senior executive at the Rockefeller Foundation in New York, "we're in a period without *leadership*." Mr Karel, a southerner with conservative leanings, is not criticising the Bush Administration which he regards as more a symptom than a cause of the present paralysis. His argument is that social problems have grown more complex and that no individual or group is now capable of "articulating a solution that commands consensus support."

Lurking behind the whole social debate is the President's infamous "read my lips" pledge – what Dr Sawhill at the Urban Institute calls the "comic opera" of federal tax policy. Few experts believe that money alone can solve problems, but most accept that resources must be diverted into domestic priority areas if the US is to raise educational standards, extend health care coverage, improve housing, reduce poverty and tackle lawlessness.

Mr Bush is an exceptionally lucky President. Given the tide of international events and the possibility of a substantial "peace dividend," a diversion of resources may *not* require higher taxes. The Administration may be able to tackle some of the US's appalling social problems without burdening the better off. But, given the public's low expectations, this will happen only if the President chooses to recognise his domestic responsibilities. At present, Mr Bush seems in no mood to make the necessary personal commitment.

OBSERVER

The mailman cometh

■ For someone who has lived more out of Britain than in it, there is a constant sense of amazement that the country is actually considered a democracy. These bilious thoughts are not prompted, as they might have been, by the ridiculous judgment against William Goodwin of the Engineer - fined for not revealing the source of information on a company which could not be named in an article which was never even written. It is, not surprisingly, the poll tax, which dropped through the letter box in its pre-capping amount yesterday, which excites the phlegm.

Anyone with a passing knowledge of American political history (which rules out every British MP except Denis Healey and John Gilbert) knows perfectly well that the poll tax was a device used in the south to stop blacks voting. The only difference was that it was never felt necessary to dress it up with some high falutin' moniker, like community charge. Community is, in any case, best known in parts of the south as a brand of strong, dark coffee; charged is what you get out of drinking it.

To the innocent abroad, it always seemed obvious that the intent of the poll tax was to disenfranchise the underclass in Britain, which is not very democratic. Yet we were repeatedly assured that there would be no cross reference between the poll tax and electoral registers. This seemed daft since neither would exactly be top secret lists, but the fiction was pursued.

Thus, in the House on July 1, 1987, Nicholas Ridley, dismissing the "schoolboy howlers" of the opposition, intoned: "there will be completely separate registers compiled on a different basis for community charge and for electoral purposes." Mrs Thatcher said pretty much the same on February 16, 1988. "Failure to register on the community charge register does not in any way affect one's right to vote. Anything said to the contrary is totally false."

Now, my wife is American, born in Alabama, if you must know. She cannot vote in this country but is liable for the poll tax (what was that old American slogan about no taxation without representation?). She indeed was polled, or communitied as we now say, filled in all the forms and waited. *And within ten days* she got back a letter wondering why her name was not on the electoral register. So much for the letter of the law.

Corporal letter

■ There is another good letter going around this week. The government's failure to take any direct action against the Fayed brothers, who took heavy stick in a Department of Trade Inspectors' report on the acquisition of the House of Fraser, has aroused the interest of the indefatigable Tam Dalyell, the Labour MP.

In his sights this week is Ridley, and perhaps Dalyell had looked up the Hansard extract quoted above. After watching the repeat of Channel Four's documentary The Harrods Sale on Good Friday, Dalyell has written to fellow old Etonian Ridley in his own inimitable style. "You and Douglas Hurd used to cane 13-year-olds for telling lies. Is lying now acceptable?"

Channel Four, meantime, is already at work on a new programme exploring the unanswered questions. They had better be quick. The way things are going these days new laws on privacy will probably prevent any serious investigation into the apparent reluctance of Tory ministers to pursue the issue.

"Still think it's an oil pipe?"

Letter of the law

■ Absent a needed Bill of Rights, there is far too much tinkering around with laws these days. It is not only the bad ones coming in but also the good ones getting struck out. A perfect case in point is to be found in the new *Finance Bill which has the* brazen nerve to abolish one of the requirements of the Alcoholic Liquor Duties Act of 1979 that a distiller must provide lodgings for officers in charge of a distillery.

This clearly renders less attractive one of the most desirable professions. It may also be seen as a further attempt by the government consciously to alienate the Scots. Or perhaps it is a further disguised retreat from the community charge in Scotland. Presumably somebody would have to pay the poll tax for accepting free lodging.

But, before castigating all who rule us, a thought should be spared for Viscount Caldecote. As chairman of the Crown Appointments Commission which advises, if that is possible, the Prime Minister on the choice of a new Archbishop of Canterbury, he is well aware that he could be undertaking a controversial task.

Before ennoblement his father, Sir Thomas Inskip, was given the post of Minister for Co-ordination of Defence by Baldwin, and Winston Churchill described it as "the strangest appointment since Caligula made his horse a consul."

Poll axed

■ My colleague Peter Martin tells me of a moment of acute embarrassment when he was plugging his new book, optimistically entitled How to Survive and Prosper in a Recession, on local radio this week. Introduced as "a financial expert," he was immediately floored by a basic question about the poll tax. The embarrassment was heightened by the fact that the question was promptly and accurately answered – by the disc jockey. Clearly, when it comes to the really tricky financial issues, you should look for the man with the greying ponytail and the Grateful Dead tee-shirt. Maybe he should run for parliament.

Letter of credit

■ It is pretty obvious that the Iraqis are not going to be deterred by mere laws to get what they need. Yesterday's example was a Reuters report from Rio that an Iraqi diplomat choked two parrots to death at Brasilia airport this week. Authorities said Kadaru Isamal became upset when prohibited from leaving on a flight to Baghdad because he was trying to leave with two parrots protected by Brazilian law. So he strangled the birds. Well, they could have been homing device pigeons in disguise.

Jurek Martin

Power struggle

Nick Garnett on changes in the electricity market

Almost overnight, the UK market for large scale power stations has gone through an unprecedented transformation.

Demand for large, conventional coal and nuclear stations has collapsed. Smaller gas turbine-powered units known as combined cycle stations have arrived with astonishing speed to become the dominant technology for at least the next decade. And, after years of supplying into a protected industry, UK equipment makers are having chunks of the business taken away from them by foreign competitors in a market that is now the most open in Europe.

"It has been a real shock to the equipment industry," says Mr Kelvin Bray, chairman of the gas turbine arm of GEC Alsthom, the British-French heavy engineering group. The consequences will have a significant impact not only on equipment makers but on Britain as a manufacturer of power station plant.

Electricity generation in Britain has been dominated by large coal, oil and nuclear stations in which all the principal pieces of machinery – turbines, generators and boilers – have been supplied by British companies with proven technology using factories in the UK. As in the rest of Europe, it has been a closed affair, based on a close if sometimes fraught relationship between the Central Electricity Generating Board and the main suppliers of traditional equipment, GEC, Northern Engineering Industries and, for boilers, Babcock.

Last year, the cancellation of three large planned coal-fired stations and the virtual shelving of the nuclear station programme during electricity privatisation wrecked all this.

As a result, smaller stations powered by gas have emerged as the growth technology for electricity generation in the UK. These combined cycle plants produce power not only from their gas turbines but also from an auxiliary steam turbine. In the new, fragmented environment of electricity supply, such stations are more suitable. They are 20 per cent cheaper to build and their thermal efficiency (the ratio of energy produced to fuel used) is at least 50 per cent compared with 37 per cent for big coal fired stations.

But the emergence of this technology, requiring large gas turbines, has exposed a major weakness in the UK as a manufacturing country. Only one indigenous supplier, John Brown, produces such machines in Britain, and even that company imports a lot of the core components. Other leading UK equipment makers have only recently entered the field through alliances with continental European companies.

Fiddler's Ferry power station: a trend towards smaller, gas powered plants

This weakness stems from the old structure of the electricity supply industry. Under the old regime, the CEGB controlled power station demand, was not free to use gas as a fuel, and as a consequence gave UK equipment makers no incentive to develop large combined cycle capability.

A further consequence is that foreign competition has become a fact of life. Within a few months, Siemens of West Germany has won the contract to build a 900 MegaWatt station at Killingholme, Humberside, for PowerGen, one of the successor companies to the CEGB. This was the first large-scale non-nuclear power station to be ordered in Britain for nearly 20 years.

Asea Brown Boveri (ABB), the Swedish-Swiss group, is building a 225MW power station in the North West in a deal involving Lakeland Power, which ABB controls, and Norweb, the north west England electricity board. Mitsubishi of Japan has won the contract for a 1725MW station to be built on Teesside for ICI and Enron, the US utility company. In all these cases, the successful bidder possessed gas turbine technology.

Out of the dozen or so power station projects above 200MW either planned or agreed, only one has gone to a British company. This is the 350 MW station for Corby Power won by the European Gas Turbine Company, the gas turbine arm of GEC Alsthom formed a year ago between Alsthom of France and the heavy engineering interests of GEC. The gas turbines for that order will, however, be made in France.

The UK's power station market has already become a free-for-all for foreign competitors

From 1992, Europe's national power station markets will all be nominally open to foreign competition. But the UK has already become a free-for-all.

The British market faces two main questions. What are the factors governing who will get these orders for combined cycles, with an expected 8 to 13 GigaWatts of deals in the offing over the next 10 years? And, irrespective of that, how will all these changes in the industry affect employment and manufacturing capacity in the power engineering sector?

Four or five companies are now competing head on in Britain. GEC Alsthom manufactures in France gas turbines designed by General Electric of the US up to the 9E machine, a 123 MW unit. Before the formation of GEC Alsthom, GEC on its own did not have gas turbines large enough to meet these new requirements.

ABB, with its own proprietary technology, makes the larger 13E unit, a 148MW turbine. It recently set up a joint marketing company for the UK with NEI. This gives NEI and its parent, Rolls-Royce, access to big gas turbines for the first time. John Brown assembles and partly manufactures the General Electric 123MW, the same as that offered by GEC Alsthom. Siemens manufactures proprietary machines up to its 150MW model. Mitsubishi uses Westinghouse technology.

Securing orders in the British market is based on a matrix of factors, including specification, size, performance and the track record of the supplier.

The bigger Siemens and ABB machines have an advantage for some configurations. For example, two Siemens gas turbines harnessed to one steam turbine provide 450MW, which some competitors cannot reach with a similar configuration. Siemens is believed to have won the Killingholme deal with a very low price. Enron is a user of Westinghouse technology which influenced the deal on Teesside.

However, there is clearly a competitive technology battle between companies with suppliers continually leapfrogging each other. One important feature is the level of thermal efficiency a machine can achieve without undue stress.

Mr Rolf Kehlhofer, marketing vice president for ABB's combined cycle business, claims the ABB model is the most efficient on the market with a thermal efficiency 4 percentage points above the worst performer. A one per cent shortfall in operating efficiency equates to 3 per cent on electricity prices, he says.

Some other companies challenge ABB's claim. It is obvious, too, that if its 13E model has an advantage it will be under attack soon from a new generation of machines. General Electric is developing the 9F model rated at 212MW. "We recognise that this machine will give GEC Alsthom an extremely strong position and we will have a problem unless we do something," says Mr Kehlhofer.

However, the first GEC Alsthom 9F will not be in service until June 1992. Meanwhile, Siemens is developing the V94.3, which Mr John Joyce, Siemens's deputy engineering director for combined cycles, says will be rated at about 200MW. In a deal with Rolls-Royce – which like General Electric but unlike ABB and Siemens has jet engine gas turbine technology – ABB is collaborating on the development of a 200MW machine.

Siemens has installed 30 combined cycle stations around the world, ABB about 60 but General Electric, including its manufacturing affiliates and associates, has supplied the biggest share of the market. GEC Alsthom has supplied more than 40. John Brown has built 14 and is on the short list for National Power's planned 600MW station on Humberside.

The dramatic shift in the UK power station market is bound to have unpleasant consequences for employment and production capacity. Gas turbine stations require steam turbines, generators and boilers like big conventional stations. But the kit used is much smaller, requiring much less manufacturing space, and there is foreign competition for the ancillary equipment.

The size of British export orders for conventional stations will play a large part in determining how severe these consequences will be.

Additional reporting by Maurice Samuelson

Eastern European reform

Best of both worlds

By Michel Camdessus

The so far peaceful revolution sweeping through eastern Europe raises critical questions. Will all its promise be fulfilled? Will the process of reform be derailed?

Can the people of eastern Europe enjoy the best of both worlds, by reaping the benefits of a market system while retaining some of the apparent security of the planned system? Can reforms be implemented gradually, to reduce the disruption? Most difficult of all: is it possible, after these countries have suffered scarcities for so long, to ask them now to undertake such hard adjustments? No one could pretend to have complete answers to these questions, but experience suggests some pointers:

● Attempts to find a "third way" between central planning and a market economy have not been successful. Partial reforms failed in both Hungary and Poland. Both now accept the need for a more fundamental reshaping of their systems.

● If the aim is fundamental change in the system, it is probably a mistake to take a piecemeal approach. Because all the elements of the economic system are related, it is desirable, if you want a market-oriented system to work effectively, to introduce all the main elements at the outset.

You will want a price system that sends the right signals to producers and consumers, that reflects relative scarcities, and encourages an efficient allocation of resources. Freeing prices also means moving towards a more flexible system of wage determination. With a freer wage system, you need labour market policies that encourage labour mobility. This also implies giving up some of the job security that has been a customary feature in these countries.

With greater scope for market forces, you will have to allow more decentralised decision-making. Enterprise managers have to learn to be fully accountable for their decisions, in a system that permits both the rewards of success – profits – and the consequences of failure – bankruptcy. At the same time, a social safety net is needed. These domestic elements of reform will work best if the system is simultaneously reformed to open the economy to foreign competition and the benefits of fuller participation in the world trading system.

It is probably impossible to introduce these and the other necessary institutional and legal changes overnight, and it is important to design them carefully: but proper decision-making will develop more readily if elements of a market-oriented system are put in place from the beginning.

The economic reforms will only produce good results if they take place in an environment of strong financial discipline at all levels – from governments to individual companies. This means giving up long-held habits such as the tendency to subsidise or protect inefficient or ailing companies. We know all too well from some of the advanced industrial countries how hard it can be to resist pressures for such subsidies – and how costly it is to society if governments fail to stand firm.

The introduction of market reforms in centrally planned economies can unleash pent-up forces that are hard to predict, and that need to be dissipated by appropriate policies. Prices are the most vivid example. Typically the pre-reform price system will contain many prices – for basic food items, housing and fuel, say – that have been kept artificially low for social reasons.

Economic reforms will only produce good results when coupled with strong financial discipline

Low administered prices usually conceal a huge amount of repressed inflation – excess money holdings and shortages of goods that are reflected in long queues, black markets, and cumbersome barter arrangements. When these prices are freed, and market forces start to produce a correct structure of relative prices, there is almost always an initial surge of price increases. This can be a relatively short-term phenomenon but only if financial conditions are kept tight enough to absorb the excess liquidity. If financial policies are loose, then inflation can snowball when price controls are lifted, and a price-wage spiral can quickly get out of hand.

Economic reforms alone are not enough. Reforming countries need financial assistance and investment. They will require considerable help from abroad, and a readiness on the part of the advanced industrial countries in particular to expand their trading and financial links with eastern Europe. The EC countries should continue to openly and generously welcome their eastern neighbours.

The IMF is extending substantial financial assistance to some of the reforming countries, to contribute to a closer integration of their economies into the global trading and financial network, and to act as a catalyst for financing from other sources.

Poland may be a test case for the comprehensive approach to reforms. It started from a situation of economic crisis with $40bn of convertible currency debt, and entered the last quarter of 1989 with an inflation rate of more than 30 per cent a month, falling output, and a widening and unsustainable current account deficit. In this difficult position, the newly elected government has introduced, in very short order, a major economic package.

There are grave risks in the Polish programme, but so far the results are encouraging. We had thought that the first three months would be crucial, particularly as regards inflation – and if inflation had remained out of control, then other elements of the package would have been doomed. But prices have stabilised, after an initial spurt in January, when key prices were freed.

On this basis, we are reasonably confident that the Polish programme will succeed, provided that authorities persevere with their reforms and the external support continues.

The years ahead will be difficult for the countries that are introducing reforms. There is much that the international community, including the IMF, can and should do to ease the transition and welcome these countries into a more complete participation in the world economic system. Everything must be done to help them succeed.

The author is managing director of the International Monetary Fund.

LETTERS

Turkey's place in Europe

From Mr Nurver Nures.

Sir, I find Edward Mortimer's article ("Is this our frontier?" April 3) quite distasteful and trivial in the extreme.

The logic of an argument that Europe could renege on its commitment to Turkey's eventual full membership of the European Community now that the iron curtain is up is insupportable. Mr Mortimer adds insult to injury by questioning Turkey's secularity and introducing a note of doubt about the prospect of the integration of the Turkish nation with a largely Christian Europe.

I am indeed shocked to find Turkey's European identity judged by religious criteria by someone who professes to be knowledgeable about Turkey. It is, in the first instance, fatuous to imply that fundamentalism as such is gaining a foothold in my country. Given Turkey's unblemished record of nearly seven decades of secularity, it is unthinkable that the system could deviate from its present laical and pluralistic course. Mr Mortimer should have mentioned that out of 24,603,541 votes actually cast in the 1987 general election only 7 per cent went to political parties purporting to give more weight to the role of religious beliefs in their programmes. This percentage has been steady over decades.

Mr Mortimer, with effortless superiority, also implies that the so-called Christian legacy of solidarity against the Ottoman Empire remains a key component of European identity. Such claims are surely anachronistic. Mr Mortimer himself states that "to many people, indeed, the very mention of religion will seem obscurantist and reactionary." In this context I think it is also important to remember that the Ottoman administration in Europe had an exemplary record of religious and racial tolerance. If this were not the case, it would be impossible to explain how the Greek Orthodox Patriarchate in Istanbul and the Orthodox churches in the Balkans and the Near East flourished for half a millennium in the midst of an "Islamic" empire.

Mr Mortimer is also on weak ground in implying that Turkey's Nato membership hardly seems to be a relevant criterion any longer for membership of the Community. He is apparently ignorant of the increased political significance of Nato in the shaping and stabilisation of European security. Turkey has been an integral part of Europe for six centuries and surely has a role to play and is a voice to be heard in this process.

As for Turkey's full-membership of the Community, Mr Mortimer seems to be unaware of the European Commission's "opinion" of last December whereby Turkey is deemed to be eligible for integration. The Commission was recently asked by the EC Council to draft as soon as possible a series of detailed proposals for a programme of comprehensive co-operation with Turkey that goes far beyond the existing association agreement. This is a further step in the right direction.

Mr Mortimer's entire article is based on false assumptions. The Moslem religion is the last of the major religions and is therefore liberal, forgiving and encompassing. With these tenets, to think of Islam as a threat to Europe is sheer nonsense. It is such minds as that of Mr Mortimer which were to some extent responsible for the recent rise in fundamentalism in Islam, a reaction which is not limited to the latter but exists even in this great country where democracy flourishes at its best.

Minds like Mr Mortimer's will probably be surprised to see that as east European countries emerge in the form of new democracies, there will also be a revival of religion – how extensive we shall have to wait and see. What is happening in the *Islamic world*, including Turkey, is that, with growing economic improvement, people are more concerned with their roots and hence show growing interest in religion which has, as in Christendom, helped to mould their socio-cultural identity. In this process the world of Islam is destined to find its identity as the Christian world did and there is no threat whatsoever.

If we look at Europe, its past, present and future through the restrictive perceptions of Mr Mortimer, solely in terms of Christianity and Islam, it would be tantamount to reviving the world of crusades, an intellectual exercise inviting explosions. Even from the religious point of view there are so many similarities between these two major religions which we can build upon and so leave to future generations a world more tolerant and enriched, in practically all aspects.

I honestly and sincerely feel saddened that such a misleading article was given such prominence by the FT, a paper many of us read and respect. It is a disservice to our cherished religions and unfortunately inflames fundamentalism.

Nurver Nures,
Ambassador,
Embassy of Turkey,
43 Belgrave Square, SW1

Women at work: myths and evidence

From Mr Peter Robinson.

Sir, I should like to challenge the statement by Anne Showstack Sassoon (Letters, April 12) in reply to Martin Wolf's article ("Some myths about childcare," April 9).

She states – without evidence – that "women work part-time in Britain to the extent that they do, in large part, because of lack of nursery, after-school, and holiday provision."

This statement is simply not borne out by evidence from the Labour Force Surveys, which is the only systematic evidence at hand. The 1989 Labour Force Survey showed that fewer than one in 20 married women and one in eight single women were working part-time because they could not find a full-time job. The vast majority said they did not want full-time work.

It is also a mistake to give the impression that countries like France and Italy are "good" places for female workers, when unemployment rates for women in those countries are much higher than those for men – twice as high in Italy. Britain is unusual in having a female unemployment rate below that for men, even including women unregistered for benefit.

The broad thrust of Mr Wolf's article was correct in countering the widespread notion that there will be a labour shortage in the 1990s which will demand a vast increase in child care provision in order to encourage greater female labour force participation.

Over the next decade, the labour force is already forecast to rise by nearly 1m as the increased number of adult job seekers will more than outweigh the fall in young people in the labour market – and this is quite apart from the effect on employment of the deteriorating economic situation.

Any expansion of nursery provision, as opposed to child care, should be discussed on its educational merits and not as an employment initiative.

Peter Robinson,
Deputy Director,
Campaign For Work,
Annexe B,
Tottenham Town Hall,
Town Hall Approach Road, N15

VAT and income/corporation tax requirements

From Mr C.M.M. Crichton.

Sir, I read with interest Dominic Taylor's article ("Perils of the final VAT penalty," April 5.

Value-added tax was introduced in 1972 as a "simple tax" and, at that time, there was a logic in VAT being administered by the Customs & Excise who had the experience of administering purchase tax.

Today VAT is much broader based than purchase tax and increasingly complex. This complexity is of real concern to many businesses as the requirements of the Customs & Excise for VAT, differ from the requirements of the Inland Revenue for income/corporation tax.

It now seems that a stage has been reached in the evolution of VAT where VAT and income/corporation tax requirements must be synchronised.

This, in turn, should mean that the Inland Revenue now assumes responsibility for VAT. For businesses this change could lead to a slight reduction in costs for accounting for VAT. However, it would certainly lead to a large reduction in the hassle and expense of professional fees in arguing on "grey" areas.

C.M.M. Crichton,
Monzie Castle,
Crieff, Perthshire

FINANCIAL TIMES
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BUSH, MITTERRAND TALKS

US shelves plans for new nuclear missiles

By Lionel Barber in Washington

THE US is to postpone indefinitely production of new short-range nuclear rockets to replace the ageing Lance missiles in West Germany, the Administration confirmed yesterday.

The initiative is part of a developing US-sponsored plan to shift Nato's emphasis from land-based nuclear forces to air-launched nuclear missiles. It could also involve redeployment of nuclear forces from a united Germany to other members of the alliance, according to western diplomats in Washington.

Washington's aim is to respond to the easing of tensions in Europe and the impending unification of Germany, while ensuring that Nato remains the cornerstone of the western alliance.

President George Bush spelled out this message during talks yesterday with President François Mitterrand of France in Key Largo, Florida. The meeting follows a similar informal session with Mrs Margaret Thatcher last week.

The consultations aim to hasten progress on Nato's new military posture, which will be discussed in detail at a meeting of the Nuclear Planning Group of Nato defence ministers in Canada early next month.

Once a consensus is reached within Nato, Mr Bush is expected to propose immediate negotiations with the Soviet Union to eliminate short-range nuclear weapons in Europe.

US officials declined to comment on reports that Mr Bush would propose that France provide air bases for Nato nuclear aircraft as part of the planned redeployment of the alliance's air wings.

Under President Charles de Gaulle, France left Nato's integrated military command in 1966, and the prevailing view in Washington is that Mr Mitterrand would find it politically unacceptable to reverse this decision.

George Bush greets François Mitterrand yesterday in Florida

US officials said Mr Bush had a more limited aim of coaxing France to be more supportive of US efforts to give Nato an expanded political role, and to win broad support for his emerging arms control initiative.

At her meeting with Mr Bush, Mrs Thatcher signalled that Britain would be prepared to drop *its insistence on* modernising the Lance missiles in West Germany. But she stressed that Britain wanted to see an appropriate mix of conventional and nuclear forces in Europe.

Britain has still to decide whether to collaborate with the US or the French on a new air-launched missile, and this subject is also bound up in Nato's discussions on its future military posture.

The US Lance nuclear missiles are deployed with six Nato armies, including the US Army, and are mostly, but not all, located in West Germany.

Even though the US is resigned to cancelling a replacement for Lance, a senior Administration official said it was essential to maintain a US nuclear presence in Germany.

G7 urges tougher penalties on drug money

By David Lascelles, Banking Editor, in London

CLOSER international co-operation and tougher laws to combat drug money laundering were urged yesterday by a task force representing the world's leading industrial nations.

Their report, the culmination of nine months' investigation initiated by the Group of Seven at their Paris summit last year, represents the most high-powered response yet to the drug money problem.

The report says that international co-operation is still hampered by excessive bank secrecy, by the absence of laws outlawing money laundering in many countries, and by shortcomings in mutual legal assistance.

It makes three central recommendations:

- That all countries should, without further delay, ratify the 1988 Vienna Convention which obliges signatories to outlaw drug money laundering, and creates channels for international co-operation;
- That financial secrecy laws should be amended where necessary to permit implementation of the task force's recommendations; and
- That countries seek to improve multilateral co-operation and mutual legal assistance in investigation, prosecution and extradition of money laundering cases.

There are a further 37 detailed recommendations which flesh out the report's main thrust.

The task force estimates the size of the drug money problem at about $122bn a year, of which about $85bn finds its way into the financial system to be laundered.

But the report also says that the sheer size of these sums should make them easier to detect.

The report was presented to national parliaments by finance ministers yesterday.

Mr John Major, UK Chancellor of the Exchequer, said Britain had already implemented many of the recommendations but further measures were being considered to reinforce defences against money laundering both inside and outside the formal financial sector.

Money laundering under siege, Page 30

Contras sign ceasefire pact in Managua

By Tim Coone in Managua

THE Nicaraguan government and leaders of the US-backed Contra rebels signed a definitive ceasefire agreement in Managua yesterday, putting an end to almost nine years of war which has cost an estimated 50,000 lives.

The ceasefire comes into effect immediately, and will be followed by assembly of the 12,000-strong Contra army in five enclaves ("security zones"), covering about 2,500 square kilometres in the north and centre of the country, by Wednesday of next week, when President-elect Violeta Barrios de Chamorro will take office.

Government troops are being withdrawn to at least 20km from the edges of the enclaves, and UN peacekeeping troops will be in place by the weekend to supervise compliance by both sides with the peace agreeement.

A separate demobilisation agreement was signed by Contra leaders and representatives of the incoming government, with Cardinal Miguel Obando y *Bravo of Managua as a* witness. This sets a deadline of June 10 for total disarmament and demobilisation of the Contra forces.

Chamorro: taking office

The latter point was the most contentious of 2¼ days of negotiations, and nearly torpedoed the ceasefire talks.

On Wednesday, Dr Aristedes Sanchez, Contra spokesman, *said in Managua there* would be no demobilisation of the troops until there were reductions in the size, and changes among the leaders, of the official Nicaraguan armed forces, which are still controlled by the outgoing Sandinista administration.

The Sandinistas, however, appeared unwilling to sign the ceasefire agreement without a firm timetable for the demobilisation of the Contra forces, in accordance with the wishes of the president-elect and the other Central American presidents, who set a demobilisation deadline of next Wednesday at a regional summit this month.

The face-saving compromise thus allows the Contras to hand over their weapons to the new government of Mrs Chamorro, whom they supported in the electoral campaign, and not to the outgoing Sandinista Government, which they have fought, with US finance and support, since 1981.

Before this agreeement, the Sandinista leaders had assented to the principal of significant reductions in the 80,000-strong Nicaraguan armed forces, once the Contras had been demobilised and in *accordance with a regional* agreement over mutual force reductions in Central America.

However, commentators on government-controlled radio stations were cautious yesterday in their support for the peace agreement, saying that a previous ceasefire accord, signed in 1988, had collapsed when Contra leaders reneged on it. The Contra commanders who signed that accord were dismissed after a coup within the movement.

Mr Israel Galeano, known as Commander Franklin and now commander-in-chief of the bulk of the Contra forces, is not a signatory to the new ceasefire and demobilisation agreements.

However, Commander Ruben, head of the Contra negotiating team in Managua, assured reporters: "I represent the chiefs of staff of the resistance forces and I have come here to sign the ceasefire in compliance with orders given to me by Commander Franklin."

In a related development, Mr Bernard Aaronson, US Undersecretary of State for Inter-American Affairs, was due to visit Nicaragua yesterday after talks in Washington by President George Bush and President Rafael Callejas of Honduras.

IMF issues warning to Spanish Government

By Peter Bruce in Madrid

THE International Monetary Fund has warned the Spanish Government that it must swiftly reach an agreement with employers and trade unions on boosting competitiveness to avoid a further deterioration in inflation and the current account deficit.

In a note to the Spanish Finance Ministry, an IMF team of experts warns that wages are rising so fast that the Government's efforts to cool the economy may not work in time to ensure a smooth entry to the single European market in

The IMF team, which recently spent two weeks in Spain, says: "It would be really unfortunate if a resurgence of inflation and a worsening of the trade balance made the (economic) advances achieved so far unsustainable in the long term."

The IMF's tough language, based on last year's record $11.6bn current account deficit, inflation of more than 7 per cent so far this year and wage settlements for 1990 of about 8.3 per cent, will be music to the ears of Mr Carlos Solchaga, the Finance Minister. Some analysts even suggested yesterday that Mr Solchaga may have dictated the text of the note.

Mr Solchaga has already persuaded Mr Felipe Gonzalez, the Prime Minister, to propose a "competitiveness pact" to the political opposition and the unions. The Government denies that this is merely a way of securing a wages agreement with the unions and says it is trying instead to link tax reform with union agreement on productivity.

Mr Gonzalez wants the parliamentary opposition to collaborate on the tax reform, which would be designed to encourage savings. In return, he is promising the right-wing parties, which represent the business world, that he will reopen a dialogue with the unions in the hope of improving productivity and moderating wage demands.

The shape of the proposed competitiveness pact remains ill-defined. The IMF note tries to put some meat on the idea.

"The fiscal reform in progress," says the note, "provides an opportunity to reach agreement on taxation and salaries... provided it is not achieved at the cost of budgetary equilibrium."

The three-way pact, the report says, must not damage the liberalisation of the Spanish economy achieved so far, nor impinge on the ability of employers to contract temporary workers.

The IMF note helpfully dismisses the argument that Spain should devalue the peseta, saying such a move, suggested recently by the Bundesbank, would undermine the important disciplinary reasons for joining the exchange rate mechanism of the European Monetary System last year.

With a tough credit squeeze already in place for a year and the peseta trading at the top of *its EMS* band, Spanish companies are beginning to view the advent of an open market in Europe in 1992 with a far more jaundiced eye

THE LEX COLUMN

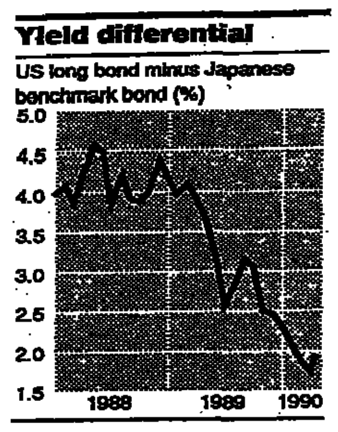
The downside of a rising yen

According to one school of thought, the yen has turned the corner. The weakness of US bonds and equities in the last couple of days, together with the strength of Japanese equities and the bounce in the yen, is taken as evidence that Japanese investors are finally making the switch.

In logic, there should come a point where Japanese institutions with heavy book losses on their domestic portfolios are driven to taking profits on their US bond holdings to make good the shortfall. The drop in the yield differential between US and Japanese *bonds in the past fifteen* months has been very striking; and from a Tokyo viewpoint, it has been accentuated by the weakness of the yen against the dollar. If undertaken *en masse*, a switch of funds back to Tokyo would be at least partly self-justifying through the effect on the exchange rate.

But it is not clear that the confidence yet exists for such a general move. Some still argue that short-term Japanese rates have to be raised again to match US levels, despite the inflation differential. And both the yen and the Nikkei, after all, are still within the trading ranges established over the past fortnight.

But it is worth recalling that a serious repatriation of Japanese funds would be the mechanism for transmitting the pressure on Japanese financial markets to the rest of the world. It is not quite clear what has brought the UK equity market, for instance, to its low for the year. But if, as seems likely, the problems are still largely domestic, the international backdrop is scarcely more encouraging.



Marshall Field

Yesterday's most eloquent comment on BAT's sale of Marshall Field was the near 2 per cent drop in the shares of the purchaser, Dayton Hudson. The $1bn-plus price tag is at least $150m better than Wall Street expected, which prompts three thoughts. First, this is further evidence that BAT's stewardship was never quite as arthritic as Hoylake made out. BAT had been pumping capital investment into Field, partly to spruce up its Chicago flagship store, presumably leaving it in much better shape than other US department stores now on the block, like Bonwit Teller.

A second point is that the price bodes well both for BAT's disposal of Saks Fifth Avenue, and for the progress through Chapter 11 of the former Campeau retailing businesses, notably Bloomingdale's. But the spectacle of Minneapolis-based Dayton buying Field suggests something else too.

If real estate-rich retailers from Illinois are so attractive, perhaps Sir James Goldsmith *et al* should call it a day on his increasingly pointless run at BAT and have a go instead at Chicago's other retail institution, Sears Roebuck. Sears' conglomerate character and lowly p/e make it eminently unbundleable. And its Allstate insurance subsidiary is not unlike BAT's Farmers in business mix and distribution methods; but it is twice as big, which would satisfy the Bonapartist ambitions of Hoylake's partner, Axa-Midi.

Rule 144a

The US may still be the world's biggest borrower, but the approval by the US SEC of its new rule 144a paves the way for its re-emergence as a major source of new capital for non-US corporations. The decision to open up the US private placement market by greatly increasing the number of US investors who can play in it is a major step in the right direction. Professional investors do not need the same safeguards as the small private investor; and the US action could re-ignite fearsthat London's new regulatory structure may be damaging its competitive position in the world's capital markets.

The new SEC rule, which widens the net of potential US investors from less than 100 institutions to well over 2000, will considerably increase the size and liquidity of the $200bn US private placement market. It could double or treble the size of the average foreign private placement, and should increase the appeal to those big borrowers who do not want to comply with the onerous SEC registration conditions for public issues.

Ideally, big West German and Swiss borrowers who still maintain hidden reserves would probably prefer the US to go the whole way and accept reciprocal listing arrangements. However, Rule 144a goes a long way to meeting their concerns; and there must be a danger that the attractiveness of the new market could undermine the appeal of the listed ADR market for foreign borrowers. However, the immediate benefit of the change will be felt by managers of global equity issues, who can now increase the size of their offerings by promising a sizeable private US placement.

Albert Fisher

In view of yesterday's fresh evidence of how well Albert Fisher works as acquirer and operator, it gets harder to see why the food distributor had such a complicated £180m capital-raising exercise in January. Even before any more acquisitions the company has a £22m capital spending programme this year, which will take a chunk out of its income. But most of Fisher looks securely cash generative; and within yesterday's interim taxable profits up 24 per cent like-for-like, trading margins rose significantly. Fisher's £80m cashpile is not excessive, since its average acquisition size is about £35m. What was surely not necessary was the recent warrant distribution, a deferred call for another £110m. A good company should not underestimate shareholders by implying they would not support another proper rights issue when the time came.

Oil money

In the current hostile climate a £149m rights issue is reasonably noteworthy, especially when one of the company's biggest shareholders is British and Commonwealth. However, yesterday's 11:10 rights issue from Midland & Scottish Resources, one of last year's wonder stocks on the USM, is even more interesting. It is not yet paying a dividend and the bulk of the money is going to buy a half built mobile oil production facility, which has yet to find work, from the company's managers. This may yet turn out to be another Lasmo, but it is best to let the big institutions bet on it.

Marshall Field sold

Continued from Page 1

the acquisition would be financed with a combination of internally generated funds and a mix of debt instruments. Shares in Dayton Hudson had fallen by $1¼ to $69½ by midday yesterday on the New York Stock Exchange.

In the US, BAT has already arranged the sale of its Breuner's furniture retail and rental subsidiaries and hopes for a quick sale of its Ivey's specialty department stores once it has divested the bigger companies.

Inflation fears send UK market to new year low

By Rachel Johnson in London

THE UK equity market hit a new low for the year yesterday as investors succumbed to concerns about rising inflation and the receding chances of a Conservative Party victory in the next British general election.

The FT-SE 100 share index fell through the psychologically important 2,200 level to *close at 2,184.7, down 21.2 on* the day.

City of London economists said the market was dominated by inflation fears which had been not been eased by rumours that the annual increase in the retail prices index would exceed 10 per cent in April. The potential impact of a Labour Party government on the financial markets – especially after the favourable reception given to Mr John Smith, the opposition Labour Party economics spokesman, by US authorities during his *visit this week – had also* begun to sink home for the first time.

They said that equities had – until now – been much less sensitive to the possibility of a Labour Party government than bonds. Yields on bonds have tended to rise about half a point in reaction to the publication of each opinion poll showing the Labour Party's big lead over the Conservatives.

"One new factor in the poor outlook for bonds, and now equities, is that political risk is now uppermost in investors' *minds," said Mr Mark Brown*, a market strategist at UBS Phillips and Drew.

While fears about rising UK inflation were uppermost, City of London economists also attributed equities' poor performance to the recent fall in the US financial markets.

US Treasury bond yields have been rising sharply this week in anticipation of higher interest rates to curb inflationary pressures. This dragged down prices of bonds and shares on both sides of the Atlantic, and yesterday started *what one trader described as a* "lousy day" in London. UK government securities also came under renewed pressure.

Currencies, Page 46; World Stock Markets, Section II

WORLDWIDE WEATHER

		Y'day midday °C	°F			Y'day midday °C	°F			Y'day midday °C	°F			Y'day midday °C	°F
Ajaccio	F	12	54	Dallas †	S	11	52	Madeira	F	18	64	Prague	S	13	55
Algiers	F	18	64	Dublin	R	9	48	Madrid	F	17	63	Reykjavik	F	3	37
Amsterdam	R	8	46	Dubrovnik	F	14	57	Majorca	S	16	61	Rhodes	S	20	68
Athens	F	19	66	Edinburgh	C	8	46	Malaga	S	20	68	Rio de Janeiro		-	-
Bahrain	S	28	82	Faro	S	22	72	Malta	C	16	61	Rome	R	8	46
Barcelona	S	18	64	Florence	C	12	54	Manchester	R	6	43	Salzburg	R	5	41
Belfast	C	7	45	Frankfurt	F	11	52	Melbourne	F	17	63	S'Francisco †	F	11	52
Belgrade	F	17	63	Geneva	S	11	52	Mexico City		-	-	Santiago		-	-
Berlin	C	12	54	Gibraltar	S	20	68	Miami †	S	24	75	Seoul	F	19	66
Biarritz	C	13	55	Glasgow	F	11	52	Milan	F	12	54	Singapore	F	30	91
Birmingham	R	6	43	Guernsey	S	10	50	Montreal		-	-	Stockholm	S	13	55
Blackpool	R	7	45	Helsinki	R	9	48	Moscow	S	16	61	Strasbourg	F	11	52
Bombay	S	31	88	Hong Kong	R	19	66	Munich	C	4	39	Sydney	R	18	64
Bordeaux	C	12	54	Innsbruck	F	8	46	Nairobi	F	25	77	Tangier	S	20	68
Boulogne	F	9	48	Inverness	F	9	48	Naples	R	9	48	Tel Aviv	S	29	84
Bristol	C	7	45	Isle of Man	F	9	48	Nassau		-	-	Tenerife	F	20	68
Brussels	C	5	41	Istanbul	S	19	66	Newcastle	F	8	46	Tokyo	F	14	57
Buenos Aires		-	-	Jersey	C	11	52	New Delhi	S	35	95	Toronto †	S	4	39
Budapest	T	13	56	Johannesburg	F	19	66	New York †	S	9	48	Tunis	R	11	52
Cairo	S	28	82	Las Palmas	F	21	70	Nice	S	16	61	Valencia	S	21	70
Cape Town	S	23	73	Leeds	F	9	48	Nicosia	S	21	70	Venice	R	9	48
Cardiff	R	8	46	Lisbon	S	19	66	Oporto	F	15	59	Vienna	R	10	50
Chicago †	S	7	45	Locarno	S	17	63	Oslo	F	11	52	Warsaw	F	18	64
Cologne	F	11	52	London	F	12	54	Paris	C	7	45	Washington †	S	7	45
Copenhagen	R	8	46	Los Angeles †	C	16	61	Peking		-	-	Wellington	S	15	59
Corfu	F	16	61	Luxembourg	C	8	46	Perth	R	25	77	Zurich	F	8	46

C-Cloudy. Dr-Drizzle. F-Fair Fg-Fog H-Hail. R-Rain. S-Sunny Sl-Sleet. Sn-Snow. T-Thunder.
† Noon GMT temperatures

Lithuanians stand firm over blockade

Continued from Page 1

port of Klaipeda, 360km away from Lithuania's refinery.

Mrs Prunskiene told a press conference in Oslo yesterday that the Soviet oil and gas blockade was "not unexpected." But she added: "A closing of our economic borders in the east strengthens our decision to open up new borders to the west."

The mood in Vilnius, the republic's capital, was reported calm as the Baltic state was left with enough energy to keep households going for up to six weeks.

Lithuanian industry, including large chemical plants, relies heavily on gas for power generation. It is not technically possible for Norway, to supply gas to the country because there is no transportation infrastructure.

Mr Algimentas Cekuolis, a spokesman for the Lithuanian Government said: "People here are saying 'So we will have no fuel supplies. Well, we will ride bicycles and bring out the wooden stoves for cooking. Why not? Independence has to be paid for.'"

Ms Ilona Rukiene, a journalist at Radio Vilnius, said: "Today is a very beautiful day here, there are fewer cars on the streets and people are discussing politics everywhere. I can't say were afraid, we've taken our decision (to become independent) and that's it."

Lithuanian leaders yesterday issued appeals to save energy and met to consider how to distribute remaining resources. Mr Ceslovas Jursenas, a government spokesman, appealed on the radio for the "most thrifty" use of energy.

"Where we can give up the use of gas, petrol, any heating or lighting, let us do this and then we will be able to survive longer and maybe we will not be intimidated by these sanctions."

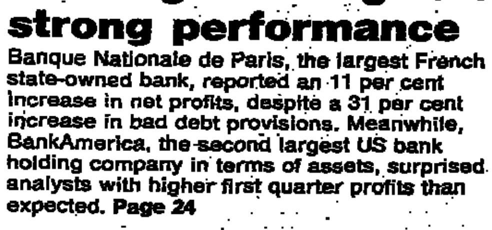
FINANCIAL TIMES
COMPANIES & MARKETS
Friday April 20 1990

INSIDE

Leading banks give a strong performance

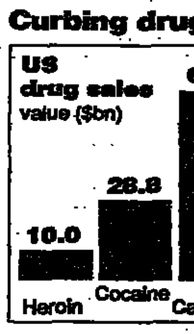
Banque Nationale de Paris, the largest French state-owned bank, reported an 11 per cent increase in net profits, despite a 31 per cent increase in bad debt provisions. Meanwhile, BankAmerica, the second largest US bank holding company in terms of assets, surprised analysts with higher first quarter profits than expected. Page 24

Kanebo takes heart from a fall



The yen's fall could scarcely have been better timed, at least as far as the Japanese textile group Kanebo is concerned. Kanebo struggled through the 1980s, viewing the strong currency's effects on export markets with ill-disguised alarm. It was forced into a painful period of cost-cutting, and has steered itself back to stability. Now the challenge for the 1990s will be to turn that stability into a longer-term recovery. Page 27

Curbing drug money launderers



Street sales of cocaine, heroin and marijuana are estimated to total $122bn each year, of which $85bn is available to be laundered through the banking system. Some 40 proposals for curbing such laundering are contained in a report released by the world's leading industrialised countries. The measures include limitations on bank secrecy and better monitoring of cash movements. Page 30

Grand designs

Midland & Scottish Resources, the loss-making USM-quoted company and one of the most entrepreneurial oil production groups in the North Sea, announced a £149.2m ($243m) rights issue to acquire the world's largest floating oil production facility. The rights issue is unusually large for a relatively small company, while the structure of the deal is exceptionally complicated, reports David Thomas. Page 35

Little rest for Anglo American

Anglo American, the South African resources group headed by Gavin Relly (left), has a reputation as one of the country's most liberal mining houses. Yet it is also traditionally the one which suffers most from industrial unrest. Thus, it was no surprise that results from the six gold mines managed by the group showed that activities on several mines were hampered by industrial action and other production problems during the March quarter. Page 27

Market Statistics

Companies in this section

Chief price changes yesterday

FRANKFURT (DM)

Rises			
Degussa	577	+	8.5
Falls			
Allianz	460	−	10
Gerresheimer	343	−	10
Hochtief	1340	−	20
Leifheit	653	−	11
Springer Vlg	805	−	20

NEW YORK ($)

Rises			
Digital Equip	81⅝	+	1¾
Oregon Steel	37¾	+	1¾
Falls			
Charles Schwab	14⅞	−	1
Comdisco	18⅜	−	8
Dayton Hudson	69⅞	−	⅞
Silicon Graph	30½	−	4⅞

PARIS (FFr)

Rises			
Unibail	898	+	13
Falls			
Carrefour	3490	−	60
CGE	617	−	13
Immobanque	624	−	8
L'Oreal	5320	−	110
Ocean	350	−	11

TOKYO (Yen)

Rises			
Prima Meat	720	+	90
Sumitomo Ind	873	+	100
TDF	2050	+	260
Teraoka Seis	1890	+	220
Toyo Eng Wks	1320	+	170
Falls			
Taisei Fire	1020	−	60

New York prices as at 12.30pm.

LONDON (Pence)

Rises				Burmah	608	−	11
Isopad Ind	199	+	11	Calor	256	−	6
Stonehill	52	+	8	Mid & Scot Res	173	−	23
T & N	159	+	5	Northumber	127	−	11
Wilding Office	75	+	7	Parkfield	315	−	13
Falls				Rockfort	25	−	7
ASDA	94	−	6	SmKl Beecham	479	−	17
Arlen	41	−	5	Speyhawk	169	−	32
Arley Hldgs	29	−	9				
Borland	910	−	45				

Alcatel earnings jump 33% to Ecu478m

By Laura Raun in Amsterdam

ALCATEL, the French electronics group, announced yesterday that earnings soared by one-third in 1989 and that one of its owners, Compagnie Générale d'Electricité, had increased its stake.

Net income jumped 33 per cent to Ecu478m ($539m) last year from Ecu361m in 1988 on robust growth in all product sectors and geographical areas. Revenue climbed 15 per cent to Ecu12.8bn from Ecu11.1bn, fuelled, in particular, by public telephone networks and cables.

Mr Pierre Le Roux, the group's financial officer, forecast that the big telecommunications equipment maker would increase its profits and sales again in 1990. But he declined to specify the amount.

"Alcatel has entered the 1990s with a three-year record of solid achievement," declared Mr Pierre Suard, chairman and chief executive officer. "We have increased our market shares. We have doubled our net income. And we've considerably strengthened our financial structure."

Alcatel was founded in 1986 by the merger of CGE's Alcatel telecommunications business and most of the worldwide telecommunications operations of ITT, the US conglomerate.

CGE recently bought an additional 1.5 per cent stake in Alcatel at "fair market value" from Crédit Lyonnais, Mr Suard disclosed.

That gives CGE a 63 per cent stake in Alcatel through a European holding company controlled by CGE. ITT retains 37 per cent.

Since its founding, Alcatel has vied with its arch-rival, American Telephone & Telegraph of the US, to be the world's largest telecommunications group. At a news conference in Amsterdam, the home of Alcatel's legal division, the French group declared it had won 15 per cent of the world market for public telephone switching.

That top spot, along with leading shares in telephone transmission, business systems and cables made Alcatel the world number one, Mr Suard insisted. Widespread restructuring had also yielded fruit, he noted.

Alcatel expects turnover in eastern Europe to nearly triple this year to Ecu200m from Ecu80m in 1989. It has joint venture agreements for the manufacture of telecommunications equipment in East Germany, Hungary and Yugoslavia, and views them as long-term investments.

Mr Suard also announced that Alcatel would sign an important Ecu40m contract with China today. Alcatel will provide 300,000 lines of System 12 digital telephone exchange switches, transmission equipment and cables to Sichuan province.

Alcatel's profitability – as measured by income before taxes, non-recurring items and minority interests – rose to 4.1 per cent in 1989 from 3.2 per cent in 1988 and 2.4 per cent in 1987.

The debt-to-equity ratio shrank to 27 per cent at the end of 1989 from 35 per cent at the end of 1988, thus lowering debt in spite of higher interest rates.

Martin Dickson reports on the political and legal barriers to BTR's takeover of Norton

Changing the rules of the ballgame

Cahill must tackle US opposition from the likes of Dukakis and Kennedy

If you enjoy costly games of chance, where the rules can change with alarming speed, and if you take a masochistic pleasure in being politically vilified, then you can do no better today than be a foreign company launching a hostile bid in an economically depressed region of the US.

That, at least, is the lesson BTR, the aggressive British industrial conglomerate, must be drawing from the mounting opposition to its $1.64bn takeover bid for Norton, a manufacturer of abrasives based in the Massachusetts town of Worcester.

Yesterday a group of congressmen from Massachusetts, led by Senator Edward Kennedy, began a protest campaign against the bid. They urged President Bush to block the takeover attempt on the grounds that Norton was a "critically positioned US company" which "sits on the border of a whole new frontier of technology" and has research and development capabilities that are "vital to national security."

Rep Ronald Dellums, leader of the black congressional caucus, has also urged President Bush to block the offer, claiming that BTR has "one of the worst labour records of any multi-national company doing business in South Africa."

The position-taking in Washington is unlikely to improve BTR's public image, but it is questionable whether it will have a vital effect on the bid battle. For one thing, it is not as if BTR is a company new to the US. After a succession of mostly friendly acquisitions over the past decade and a half, it already has a very sizeable presence in the country.

That said, state-level politics have already changed the course of the contest significantly: Mr Michael Dukakis, the Governor of Massachusetts, signed into law this week a piece of anti-takeover legislation which requires companies in the state to have staggered terms for directors, with one third elected every year.

The bill was rushed through as a specific response to the BTR bid, since the British company, faced with the opposition of Norton directors to its offer, had been seeking to oust them through a shareholders' vote at the annual meeting, due to be held next Thursday.

The legislation underlines a growing tendency for US states to adopt rules which severely restrict takeover activity. The most radical of these is a law, due to be enacted in Pennsylvania any day now, which would force corporate raiders to "disgorge" profits on failed bids and make it much harder for them to gain control.

But despite these political setbacks, most analysts believe BTR is still likely to swallow up Norton – provided it is prepared to wait long enough, fight its way through a host of legal complexities and sweeten its bid with rather more cash. That is certainly the lesson contained in the Norton share price, which has stayed consistency around, or above, the $75 a share on offer since the start of the contest.

Whatever the outcome, the bid is an important test for Mr John Cahill, BTR's chief executive. It is not the first hostile bid by the group since he took over this position from Sir Owen Green, the architect of BTR's remarkable growth, but Mr Cahill has been particularly publicly involved in the Norton campaign.

Where does his assault on Norton go from here? The next crucial event is next Thursday's annual meeting, when BTR will seek to place three directors – the maximum permitted under the new Massachusetts regulations – on the Norton board.

BTR has already won at least one victory in that Norton has fought, and so far failed, to have the meeting postponed by the courts for two months while it bolsters its defences. It is now trying to restrict the ability of investors backing BTR to vote their shares at the meeting.

Provided Norton fails with this tactic, and does not come up with any more surprise legal obstacles before the meeting, BTR should get its three people – John Cahill included – on to the board, since over 60 per cent of Norton's shares have already been tendered for its offer.

At that point, a very interesting game of boardroom dynamics would begin. At worst, BTR might have to wait a year before the new Massachusetts law allowed it to seek a majority of directors.

But long before then the three BTR representatives would be making life very uncomfortable for their boardroom colleagues, trying to press them into negotiations with the UK group.

Norton, for its part, still has several useful, but not necessarily fatal, arrows in its quiver: a poison pill plan which would automatically dilute BTR's holding in the group, and a 1989 Massachusetts law which could delay completion of the deal for three years.

But Norton is also vulnerable in several areas. It has evidently been looking for a white knight to ride to its rescue, or at least take a minority stake in the business. None has appeared so far and Wall Street analysts doubt whether one will, given the depressed state of Norton's markets and the relatively generous level of BTR's offer, at 19 times historic earnings. So far, Norton has not publicly addressed the criticisms of its flat profits performance levelled by BTR.

All this apart, Norton directors will be only too aware that, like any US board on the receiving end of a bid, they are walking a fine line between ensuring that their company is not sold cheaply and attracting shareholder suits for resisting a fair offer.

Somewhere in all this, there may be the makings of a compromise settlement, although it would almost certainly take several months and a few dollars more. "BTR's ultimate weapon is money," concludes one analyst. Whether Mr Cahill would be prepared to pay the price for peace is another matter.

Peugeot expected to increase UK investment

By John Griffiths in London

SUBSTANTIAL new investment in Peugeot's British car operations is expected to be triggered by the announcement yesterday of further record profits by Peugeot Talbot, the UK subsidiary of the French vehicle group.

Spending of £100m ($163m) or more to provide Peugeot Talbot's Ryton plant near Coventry with the capacity to build 200,000 cars a year – thus matching the scale of plants being set up in the UK by Japanese rivals – is understood to be planned following Peugeot Talbot's announcement of a pre-tax profit of £135.3m last year, up 26.8 per cent on 1988.

The latest figures mark the third year of a spectacular financial turn-round for the company, which between 1978 and 1986 ran up losses totalling more than £350m.

While Peugeot Talbot would neither confirm nor deny the potential investment figures, Mr Geoffrey Whalen, the managing director, has indicated that a decision on investment could be announced later this year.

It is likely to include a new paint plant and flexible assembly equipment which would allow Peugeot Talbot to build two models at Ryton. Currently it is producing only the Peugeot 405 medium car range.

"Ryton was always conceived of as a two-model plant," according to Mr Whalen.

A move to increase capacity is almost a necessity if Peugeot Talbot is to continue to assemble cars in the longer term in competition with the UK plants of Toyota, Honda and Nissan.

The company last year produced 107,500 cars, up 38.5 per cent on the previous year. Of these, more than 60 per cent were exported.

Mr Whalen says he expects total output to reach 120,000 cars this year, in spite of a slight downturn in the UK new car market. The company says this is the maximum which can be achieved by the plant without investment.

Peugeot Talbot has also put itself in its French parent's good books by further repayments of £200m received from Peugeot in the troubled early 1980s. Last year it paid a dividend of £60m relating to 1988's results and a further £30m relating to last year's.

Last year's performance meant that Peugeot Talbot paid a substantial tax bill, of £30.5m, for the first time since the 1970s. This dropped its net profits to slightly below 1988's level to £104.8m from £106.8m.

Court appoints trustee to run Eastern at creditors' behest

By Roderick Oram in New York

MR FRANK Lorenzo has lost control of Eastern Air Lines, the ailing carrier he struggled for a year to rebuild under the protection of the US bankruptcy court.

Agreeing to a request from Eastern's unsecured creditors, Judge Burton Lifland has appointed a trustee to run the airline and to work out the best way to meet creditors' claims.

He chose Mr Martin Shugrue, a former vice-chairman of Pan American World Airways who was later president of Continental Airlines. Like Eastern, this is owned by Texas Air, the holding company which Mr Lorenzo controls.

Mr Shugrue quit Continental in February 1989 after a year on the job. He was reportedly angry that Mr Lorenzo failed to give him the chairmanship of Continental.

Given their past clashes, Mr Shugrue and Mr Lorenzo could have a strained working relationship, analysts said. Texas Air said it would not appeal against the court decision and "will co-operate fully" with Mr Shugrue. "Texas Air presently intends to continue to work with and support Eastern in all reasonable ways."

Appointing a trustee is unusual in big US bankruptcy cases. Typically, the court prefers to let the existing management work out a restructuring plan.

Eastern has repeatedly fallen short of its goals since it was hit by a machinists' strike and a pilots' walkout a year ago. It is now offering about 80 per cent of its pre-strike schedule, using newly-hired pilots.

Five different repayment plans Eastern proposed to creditors have been overtaken by mounting losses. Whereas Mr Lorenzo originally promised full repayment, his latest offer per $1 of debt was only 5 cents in cash and 20 cents in Continental paper.

The unsecured creditors, who are owed more than $1bn, rejected the offer and pressed the court for the trustee. They said in their filing: "The entire estate is in jeopardy of disappearing, leaving the creditors, who have stood with Eastern for a year, with nothing."

With mounting losses which totalled $326m last year and Eastern's constant requests for renegotiations, "creditors have justifiably lost all confidence in management," the creditors said.

Appointing a trustee is "a very negative statement on the credibility and performance of management," said Ms Malva Rabinowitz, a Deloitte & Touche partner specialising in corporate reorganisation.

American Express $620m in loss

By Janet Bush in New York

AMERICAN Express, the US financial services and travel group, yesterday announced a net loss of $620m in the first quarter due to the troubles at Shearson Lehman Hutton, its brokerage subsidiary.

The negative effect of Shearson, which had a net loss of $915m in the quarter, overshadowed record results in American Express's travel, financial and information services businesses. Earnings at the American Express Bank were lower than a year ago.

The loss of $620m, or $1.50 a share, compared with net income of $252m, or 59 cents, in the first three months of last year. Revenues rose slightly to $5.91bn from $5.87bn in the year-ago quarter.

Mr James Robinson, chairman of American Express, said: "The impact of the Shearson charges is in line with previous estimates. We've come through a tough quarter and we're looking forward to building on our considerable strength well into the future."

Shearson, which has recently received $1.35bn in fresh capital from American Express, took a restructuring charge of $630m and an accounting charge of $157m against its first-quarter earnings. American Express recognised these charges under its merger agreement last month through which it will acquire all the shares of Shearson it does not already own.

American Express Travel Related Services reported a record $215m net income for the quarter, 16 per cent higher than a year earlier.

These results were driven by earnings growth in the American Express card business worldwide.

The IDS Financial Services division also had record earnings of $44m, up 21 per cent from a year ago. This was achieved primarily from a rise in assets owned or managed to $48bn, 18 per cent higher than a year ago.

The information services division, which includes credit card processing and money transfers, made record first-quarter net income of $22m, up 27 per cent from a year ago.

American Express Bank reported net income of $30m, compared with $35m in the first quarter of 1989. These results include a pre-tax gain of $72m from the sale of TDB American Express Bank, its Swiss-based private banking subsidiary.

BNP net up 11% despite increase in bad debts

By George Graham in Paris

BANQUE Nationale de Paris (BNP), the largest French state-owned bank, has reported an 11 per cent increase in net profits to FFr3.41bn ($606.8m), *despite a heavy increase in bad* debt provisions.

The bank improved its operating profits to FFr11.3bn, up 17 per cent from the previous year, with French activities advancing by 18 per cent to FFr8.5bn, and foreign business up 13 per cent to FFr2.7bn.

BNP boosted its new bad debt provisions by 31 per cent to FFr6.7bn, lifting its stock of provisions to FFr44.6bn.

Mr Jacques-Henri Wahl, *joint managing director* in charge of international affairs, said that BNP had made FFr2.4bn of new provisions on sovereign debts, but in addition had set aside FFr924m for unpaid interest, following the suspension of debt service by, for example, Brazil, Argentina and the Ivory Coast.

BNP also provisioned *another FFr920m for risks in* consortium banks in which it is a shareholder, essentially Banque Internationale pour l'Afrique Occidentale (BIAO), the stricken West African commercial bank.

Mr Wahl said BNP had already provisioned FFr600m on BIAO in 1988. Last year, it made another FFr600m provision, and *its results were also* hit by BIAO's FFr337m net loss. Cameroon, Senegal and the Ivory Coast, three of the worst affected subsidiaries, were, however, not consolidated, because BNP plans to shed them as soon as it has *negotiated its withdrawal with* the governments concerned.

The group also had to provision FFr370m for losses incurred by its Swiss subsidiary in the financing of oil trading, and has injected FFr200m of fresh capital into *this subsidiary*.

Bristol-Myers expands to $409m

By Karen Zagor in New York

BRISTOL-Myers *Squibb*, the world's second biggest drugs company which was formed last year in a $11.52bn merger, yesterday reported a 19 per *cent increase in first-quarter* net earnings to $409.1m or 78 cents a share, from $343.6m or 66 cents a year earlier.

The company, which took a series of hefty charges last year related to the merger, said sales in the latest quarter grew *9 per cent to $2.46bn from* $2.26bn.

International sales grew more quickly than domestic *sales, in spite of being hit by* an unfavourable dollar exchange rate. The company's overseas sales rose 13 per cent compared with a 6 per cent *improvement* in domestic sales.

Earnings before tax grew 16 per cent to *$594.6m from* $514.1m.

The results were in line with expectation on Wall Street, and shares in the company moved down $¼ to $53⅞ in mid-session trading on the New York Stock Exchange.

The New York-based company also said it had agreed to sell its Genetic Systems business to a subsidiary of Sanofi of France for an undisclosed sum. Sanofi is part of the Elf Aquitaine group.

Genetics Systems is an *in vitro* diagnostics company which develops and markets tests for infectious diseases. Its leading product, according to Bristol-Myers Squibb, is a highly accurate test to screen AIDS antibodies. It was founded in 1980 and had sales last year of about $10m.

● *Schering Plough, another pharmaceuticals company, has* also reported strong first-quarter earnings. Net income advanced 20 per cent to $150.4m or $1.33 a share although sales grew more slowly, by 4 per cent to $665.1m.

Excluding divestitures in 1989 and the impact of fluctuating foreign exchange rates, sales advanced 8 per cent in the latest quarter.

The company attributed the improvement to the strength of its worldwide pharmaceutical *businesses*.

Californian market helps BankAmerica

By Roderick Oram in New York

BANKAMERICA, the second largest US bank holding company in terms of assets, yesterday reported higher first-quarter profits, marking a continuation of its recovery *from its travails of the mid-*1980s.

Net income for the three *months ended March totalled* $278m, or $1.23 a share, a better result than many analysts had forecast.

The year earlier net of $275m, or $1.38 on 12 per cent fewer shares, had included interest payments from Brazil which boosted net by $38m. No payments were received in the latest quarter.

"The strength and diversity of the California economy has helped to insulate us from some of the financial stresses in certain US markets," Mr Tom Clausen, chairman, said.

Total domestic loans grew by 18 per cent to $60.03bn from $50.91bn. Foreign commercial and industrial loans grew 5 per cent to $10.96bn, while foreign government loans fell 5 per cent to $3.55bn.

The group added $185m to loan loss reserves in the quarter, making a total of $3.42bn, or 4.39 per cent of loans outstanding. A year earlier it added $110m for a total of $3.62bn, or 5.25 per cent.

Most of the provision related to credit losses from the sale or swaps of assets of countries *restructuring their debts*.

Net interest income on a taxable-equivalent basis increased only marginally to $993m from $987m. Excluding the 1989 Brazilian payment, interest income rose $52m. The net interest margin slipped to 4.33 percentage points from 4.60 points. Excluding Brazil, the margin was down only 5 basis points.

Non-interest income rose $85m to $521m, due mainly to growth in fees and commissions.

Total assets rose to $101.1bn *at quarter-end from $96.6bn* a year earlier. Shareholder equity equalled 5.09 per cent of assets, up from 4.96 per cent a year earlier. The average rate of return on earning assets was 1.22 per cent, against 1.29 per cent a year earlier.

Recovery at Reebok continues

By Alice Rawsthorn

REEBOK, the US sportswear company, continued its recovery by increasing pre-tax income to $88.01m from $83.93m in the first quarter thanks to the success of its new basketball shoe and the *growth of overseas markets*.

The group lifted earnings per share to 46 cents from 43 cents. Mr Paul Fireman, chairman, said sales and income had reached record levels.

Reebok, which is 32 per cent owned by Pentland Industries of the UK, *has been battling* against Nike, another US company, for dominance of the intensely competitive international sports shoe market.

The success of the Pump, a basketball shoe with an inflatable lining, has helped it to *gain ground in the US*. The shoe, which sells for $179, was introduced last autumn and Reebok has since increased production.

Most of Reebok's growth in the quarter came from overseas markets. Group turnover *rose by 13 per cent to $554.4m* from $488.49m, but sales outside the US more than doubled to $116m, against $57m.

Royal Trustco climbs by 20%

ROYAL Trustco, Canada's largest trust company, reported a 20 per cent gain in first-quarter net profits, mainly *because of the acquisition of* Pacific Trust Financial Corp in the US last year, **writes Robert Gibbens in Montreal.**

Earnings were C$72m (US$62m), or 40 cents a share, up from C$60m, or 41 cents, on fewer shares outstanding a year *earlier. The company* issued 11m new shares to pay for the acquisition of the US thrift.

Charge slows Digital Equipment

By Louise Kehoe in San Francisco

DIGITAL Equipment, which *had earlier indicated* it faced the possibility of its first-ever quarterly loss, yesterday surprised investors with higher than expected operating earnings for its third fiscal quarter.

However, the big US computer manufacturer took a *$150m charge against* earnings to cover the costs of a planned reduction in its workforce, *sharply lowering its* net earnings.

Income for the quarter was $174.9m before the restructuring charge. Net income after *the charge was $24.9m or 20* cents per share, compared with $256.4m or $2.05 a year ago.

The company reported total revenues of $3.26bn, up 4 per cent from the $3.13bn for the comparable period a year ago.

Mr James M. Osterhoff, vice president, finance, said the $150m charge "reflects costs for employee separations and redeployment. Further opportunities for cost savings are being investigated, and there may be additional restructuring charges in the future."

Digital said it had offered voluntary severance packages to 1,840 of 2,300 employees at its Puerto Rico plant and hoped to reduce employment there by 350 people. It had previously offered the severance package to 2,000 US employees and 700 had accepted.

For the nine-month period net income was $331.1m compared with $759.4m, and earnings per share were $2.65 against $5.94. Revenues were $9.58bn from $9.25bn.

Advance at Ciments Français

By George Graham

CIMENTS Français, the French cement and building materials group, made net profits of FFr1bn ($178m) last year, up 27 per cent from 1988, on sales that rose by the same amount to FFr12.5bn.

Mr Pierre Conso, chairman, said *the inclusion* of newly acquired companies in Turkey, Spain and the US should boost sales to between FFr15bn and FFr16bn in 1990, with net profits of *between* FFr1bn and FFr1.2bn.

The group, which ranks second in the French cement industry behind Lafarge Coppée, has been expanding rapidly over the last year with a series of acquisitions. It announced yesterday the purchase of US Cement, a *producer* in the Pittsburg region.

The $105m purchase *last* year of five cement works from the Turkish Government has been hampered by legal difficulties over the sale, but was *reinforced recently* by a sixth works bought from a private-sector company.

In Spain Ciments Français has taken 65 per cent of Financiera y Miniera, the construction materials group, for a total investment of FFr2.4bn, while in Greece the group *hopes to complete the acquisi*tion of the Halyps cement works next month.

In Morocco the group has taken control of Ciments d'Agadir, and plans not only to increase its capacity from 750,000 tonnes a year to more *than 1m tonnes but also to* build a second works at Safi, further north on the Moroccan coast.

Simmons turns to court over Lockheed fight

MR Harold Simmons, the Dallas investor, has filed a suit in federal court to overturn results of last month's proxy fight in which he lost his bid to gain control of Lockheed, the US aerospace group, **Reuter** *reports.*

The suit, filed on behalf of NL Industries of which Mr Simmons is chairman, alleges Lockheed's board illegally engineered extra proxy votes through its employee stock ownership plan to win the fight.

Mr Simmons said in the suit: "This action seeks to restore *integrity to the recent election* of Lockheed's board of directors and to ensure integrity in future elections."

In a recent filing with the SEC Mr Simmons said he might file the suit and that he was seeking representation on the board proportionate to his shareholdings. He owns about 19 per cent of Lockheed.

Lockheed's annual meeting reconvened on Monday at which time Mr Daniel Tellep, *chairman*, said the incumbent board had been re-elected and had received between 57.6 and 60.7 per cent of the vote. Nominees of NL Industries had received 36.9 per cent.

Bowater Inc held back by newsprint business

By Maggie Urry

BOWATER INC, the US pulp and paper group, suffered a 42.9 per cent fall in net income in the first quarter, mainly because of sharply lower profits from its newsprint business.

Group net income declined to $22.2m from $38.9m a year earlier on sales 5.7 per cent lower at $338.3m. Earnings per share fell to 59 cents from $1.04, a drop of 43.3 per cent.

Operating income from Bowater's newsprint division plummeted by 89.7 per cent to $3m from $29.3m.

Other North American newsprint makers are also seeing tough trading conditions, with price discounting widespread in the industry. Newsprint profits had came under pressure last year after reaching a record level in 1988. However, *Bowater is hoping to push* through a price increase for newsprint from June 1.

Three other divisions also saw falls in operating income. Profits from coated paper fell 13.7 per cent to $21.1m, pulp by 18.1 per cent to $17.6m, and *timber operations by 36.4 per* cent to $2.1m. Only computer papers raised operating income, by 82.5 per cent to $5m.

Georgia-Pacific suffers setback

GEORGIA-PACIFIC, which took over Great Northern Nekoosa last month to create the biggest US paper group, announced a 34 per cent drop in first-quarter net income, **writes Martin Dickson.**

It blamed the decline on *lower paper and pulp prices* and a strike at one of its plants.

Net income was $101m on sales of $2.7bn, against income of $154m on sales of $2.4bn in the same period of last year. The results included a 23-day contribution from Great Northern Nekoosa, while the debt involved in the acquisition produced a *jump in interest* expenses from $66m to $97m.

Earning per share were $1.18, against $1.65 a year earlier. The building products business saw operating profits rise from $99m to $115m, but pulp and paper slipped from $247m to $182m.

Strong sales in Europe lift Apple by 134%

By Louise Kehoe

APPLE COMPUTER reported a dramatic leap *in earnings* for its second fiscal quarter, boosted by strong European sales and lower component costs.

Ending a quarter clouded by senior management changes and cost-cutting measures, *including over 400 layoffs* at its California headquarters, Apple surprised analysts with *its strong financial performance.*

The personal computer manufacturer reported a 134 per cent rise in second-quarter earnings. Net income for the quarter was $131.8m, compared with $56.4m in the same period last year. Earnings per share rose to $1.04 from 44 cents per share, far outreaching expectations.

Revenues rose by 8 per cent for the quarter from $1.25bn to *$1.35bn, lifted by international* sales which increased 27 per cent to $633m. US sales, however, dropped 5 per cent to $713.5m, the company said.

"We are experiencing marked improvements in our gross margins as a result of lower component costs and strong sales of the computers we introduced a year ago," *said Mr John Sculley, Apple* chairman and chief executive.

"During the quarter, the percentage of revenues coming from outside the US reached an all-time high," he said. "As we enter the second half of fiscal 1990, we are optimistic *regarding the level of interna*tional demand, while we remain cautious regarding growth in the US."

For the first half of fiscal 1990, net income was $256.7m, or $2 per share, up from $196.8m or $1.54 on revenues *of $2.84bn, up 7 per cent from* $2.65bn in the same period a year ago.

Overseas demand bolsters 3M

By Roderick Oram

MINNESOTA Mining and Manufacturing, the diversified US group, reported marginally improved first-quarter profits with strong foreign demand for its wide range of industrial products offsetting flat demand in the US.

Net profits rose 5.3 per cent to $335m, or $1.51 a share, from $318m, or $1.43 a year earlier on revenues up by 4.9 per cent to $3.16bn from $3.02bn.

The results were slightly weaker than Wall Street had expected.

International unit volume rose by 12 per cent from a year earlier, the ninth consecutive *quarter of double-digit* growth of foreign sales, which accounted for 49 per cent of the group total in the quarter.

In contrast, domestic unit volume grew only 1 per cent because of the slowdown in the US economy. The sluggishness was *most evident in 3M's* industrial and electronic sector, covering automotive, housing and other general markets.

Several US businesses bucked the trend to post strong growth. They included telecommunications, imaging, memory and medical products. US operations also benefited *from* continued productivity gains.

"We expect another year of higher sales and earnings," said Mr Allen Jacobson, chairman.

● 3M said recent economic events in Brazil, including the imposition of monetary controls, could reduce growth in second-quarter earnings by *about 4 cents a share, Reuter* reports.

The company said the events in Brazil were expected to have a relatively small effect on results, with most of the negative impact on the business being felt in the second quarter.

Leading US defence contractors surge in opening quarter

By Roderick Oram

GENERAL Dynamics and Northrop, two leading US *defence* contractors, have reported higher first-quarter earnings, with special gains influencing the results as profits on military work remain under pressure.

General Dynamics turned in net earnings of $123.7m or $2.97 a share, against $75.4m or $1.81 a year earlier. Revenues were marginally higher at $2.49bn, compared with $2.36bn.

The latest profit included, though, a gain of $61.5m or $1.48 from the settlement of a suit brought against American Telephone & Telegraph and Bell relating to a telecommunications subsidiary General Dynamics sold in 1982.

Operating profits from government aerospace contracts fell to $88.1m from $106.1m on flat sales of $1.48bn against $1.46bn. Profits from submarines *and land systems* were also down, reflecting mainly lower profit margins on Trident submarines.

General aviation was the one bright spot, reporting operating profits of *$16.5m* on sales of $157.5m, against $4.3m on $115.6m. The increase came mainly from an enthusiastic market response *to the company's Cessna Citation V* executive jet. Sixteen were delivered in the first quarter, almost half the total *for all of last year*.

Earnings were also hurt by a 38 per cent jump in interest expense to $19.4m, resulting from higher borrowings needed *for accelerated tax payments* required by accounting changes.

Northrop saw the first-quarter net jump to $96m or $2.04 a share, from $9.7m or 21 cents a *year earlier* on revenues which were flat at $1.28bn. The order backlog was 24 per cent higher at $5.7bn.

But the result included a $67.1m gain from the sale of Northrop's headquarters complex. Net before the gain was $28.9m, however, with the result affected by factors such as a $10.7m pension fund contribution to operating *income* against a debit of $3.2m a year earlier.

Restructuring boosts American General

By Roderick Oram

AMERICAN General, the US insurer fighting off a proxy challenge from rival Torchmark, has reported higher first-quarter profits.

The *improved* earnings were "the hard-won rewards of a very complex and difficult restructuring programme," Mr Harold Hook, chairman, said.

Net profits for period rose to $107.1m or 90 cents a share, from $97.2m or 77 cents a year *earlier. Revenues grew to* $1.04bn from $1.01bn. Assets increased 5 per cent to $32.6bn.

Operating earnings from American General's three business segments increased only marginally, however, to $130.1m from $126.5m. The improvement in net income came largely from other factors, such as a reduction in interest expense *to* $28m from $39.5m.

Torchmark continues to press for the election of its five nominees for the six seats of *the 15-strong board to be* decided at American General's May 2 annual meeting. It is also seeking shareholder support for a resolution calling on the board to consider takeover offers.

Torchmark withdrew a *$6.4bn offer for American Gen*eral last month but said it would revive the bid if shareholders backed its proxy initiatives.

Despite continuing skirmishing in the courts between the two parties, there are currently no bars on Torchmark *soliciting* proxies or making its nominations.

Higher fuel costs push AMR into $19m deficit

By Martin Dickson in New York

AMR, the parent company of American Airlines, *the largest* US carrier, reported a net loss of $19.3m in the first quarter, *laying the blame mainly on* higher fuel costs.

The loss, on revenues up 9.7 per cent at $2.7bn, compared with net income of $101m in last year's *corresponding* period. Mr Robert Crandall, chairman, said the results "can only be called unsatisfactory."

The loss per share was 31 cents against earnings of $1.60 a year ago.

Mr Crandall noted that while the first quarter was always weak this was the first loss *AMR had reported in the past* nine quarters.

While the higher cost of fuel was a prime reason for the decline, the company said labour costs and other expenses also rose. This meant that while unit costs climbed 8.7 *per cent*, unit revenues were flat because the company could not raise prices.

Operating expenses were up 17.5 per cent at $2.7bn while the yield – the average amount of revenue earned per passenger mile – was 12.73 *cents, the same as in 1989.*

High-flying Conner Peripherals sues rival

By Louise Kehoe

CONNER Peripherals, one of the fastest growing companies in the computer industry, may *be forced to slow its growth* rate because of a shortage of essential components for its computer disk drive products.

Late on Wednesday Conner *confirmed* it had filed a suit against rival Seagate Technology, charging that Seagate shut off its primary supply of a critical component when it acquired the component manufacturer last October.

Four-year-old Conner has been widely *expected to claim* the record as the fastest growing manufacturing company in US history if, as several analysts have forecast, its 1990 sales top $1bn.

Conner reported first-quarter sales of $235.1m this week, up *80 per cent on the same* quarter last year, while profits jumped 173 per cent to $15.4m or 33 cents per *share*.

Conner, a Wall Street favourite, went public in April 1988 with a share price of $8. On Wednesday the stock traded at a *record high* of $20½, closing at $20 before news of the legal action .

The component shortage has forced Conner to place some of its newest products on allocation. Mr Bill Schroeder, vice chairman, said: "This will have *an impact on our customers* and on our ability to capture incremental [business] opportunities."

He emphasised, however, that Conner did not expect its financial performance to be "below market expectations," *and pointed out that the com*pany had not advised analysts to revise their earnings estimates.

*The company's largest cus*tomer is Compaq Computer, which owns more than 30 per cent of Conner's stock. Conner is also a leading supplier of disk drives to Japanese manufacturers of laptop personal computers.

Conner alleges in its suit that after Seagate acquired Impiris Technology, a disk drive subsidiary of Control Data, last October it refused to *honour an Impiris contract to* supply Conner with "thin film heads," essential components of computer disk drives.

Seagate and Conner are bitter rivals in the market for personal computer disk drives. Mr Finnis Conner, who founded *Conner Peripherals in 1986,* was also a founder of Seagate in 1973.

Mr Schroeder said Conner *had tried but failed to resolve* the supply contract issue through discussions. Its suit, which seeks unspecified damages, alleges unfair competition, *breach of contract*, fraud and interference with contractual relationship.

Conner is attempting to find new sources of thin film heads and is redesigning some products to use an alternative type of head component. "We expect *the allocation problem to be* resolved in the third quarter of 1990," Mr Schroeder said.

The component supply problem will not have any impact on Conner's recently announced plans to establish a manufacturing operation in *Scotland.*

INTERNATIONAL COMPANIES AND FINANCE

Jacobs 'disappointed' by Brach loss

By Barbara Durr in Chicago

MR KLAUS JACOBS, chairman of Jacobs Suchard, said yesterday that he took personal responsibility for the losses at E.J. Brach, the US confectionery subsidiary, whose $50m loss last year was the principal factor in the 10.4 per cent fall in the Swiss group's 1989 consolidated net profit.

Mr Jacobs called the experience with Brach "one of my biggest disappointments" but Suchard says it is already beginning to stem the losses at Brach, for which the Swiss confectionery and coffee group paid $730m in 1987.

Suchard's group net earnings would return to the usual growth rate – 10 per cent a year on average – in 1990 after the drop to $375m last year, Mr Jacobs said in Zurich. It was the first time that the Swiss chocolate and coffee group had failed to post a profit increase since its creation by merger in 1982.

Brach's competitors, such as M&M/Mars and Hershey Foods, say managerial mistakes were its main problem. It sacked top management and reduced its product lines, prompting retailers to decrease shelf space for its products.

The Swiss group's annual report released yesterday lends credence to this argument. It attributed Brach's sales decline to too rigorous slimming of the product range. Introduction of sales methods used successfully in Europe had not taken into account the peculiarities of the US market.

Changes introduced – the marketing re-organisation, rationalisation of production units and installation of new computer systems – had outstripped the capacities of the management and led to internal conflicts, the report stated.

Mr Ronald Habijanac, Suchard USA's second president in little over a year, was replaced last week. Mr Robert Jaunich, a senior member of the group executive board in Zurich responsible for America, Asia and the Pacific, has taken personal control.

Brach's operating loss followed a 14 per cent decline in sales; in 1986 it earned a pre-tax profit of $75.6m. But results for the first quarter showed a $10m improvement in Brach's operational earnings, Mr Jacobs said.

Meanwhile, a separate row has developed in the US over Suchard's attempt to win special Foreign Trade Zone status for Brach. Competitors charge the Swiss-owned group with trying to gain an unfair competitive advantage.

Jacobs Suchard USA has asked for FTZ status, in order to buy sugar at the lower world price instead of at the US support price. It estimates that this would save $20m a year on its annual 100,000 tons of sugar purchases.

Jacobs Suchard says it is trying to preserve more than 3,400 jobs in Chicago's run-down west side. A ruling is due in the next few weeks.

Sweet and sour taste of results

JACOBS SUCHARD'S results for 1989 offered shareholders a sweet and sour menu, Mr Johann Widmer, financial director, said yesterday, writes William Dullforce.

They could take comfort from the geographical expansion, introduction of new products and modernising of the production apparatus in Europe and from the exploitation of new markets in the Far East and Eastern Europe.

But spending on these strategies together with the operational problems in E.J. Brach, the US subsidiary, had produced a decline, which had been expressed in the unsatisfactory performance of Jacobs Suchard's share prices.

Nevertheless, the more advantageous cost structures and improved market positions brought about by the investments would have an increasingly favourable effect on both sales volume and financial results, Mr Widmer said.

Jacobs Suchard plans to maintain its dividend at SFr215 ($144.9) per bearer share and SFr43 per registered share, incorporating the 10 per cent bonus paid last year.

The 4.5 per cent increase to SFr6.7bn ($4.47bn) in group turnover was due mainly to a 12.9 per cent climb in chocolate sales to SFr2.7bn. Coffee, the other main business, managed only a 1 per cent increase in sales.

Confectionery fell back by 14 per cent and the Van Houten division, which specialises in trading, financing and processing, increased its turnover by 6.3 per cent to SFr735m. Geographically, the European Community countries still accounted for 75 per cent of turnover; the new operations in the Far East are still very small.

Total assets rose by 5.8 per cent to SFr4.8bn, with shareholders' equity increasing by 6.3 per cent to SFr2.1bn.

Escamez angered by sugar sell-off

By Peter Bruce in Madrid

MR ALFONSO Escamez, the pugnacious chairman of Banco Central, one of Spain's large commercial banks, yesterday publicly expressed his irritation over the sale by a rival bank, Banesto, of its 11 per cent stake in Azucarera Espanola, Spain's third largest sugar refiner.

Banesto sold its stake in Azucarera to ED&F Man, one of the world's largest sugar brokers, earlier this week for around Pta4.4bn ($41.5m), having decided to retire from the sector and concentrate on other industries.

Man, which also owns about 10 per cent of the Spanish tobacco trader, Tabacos de Filipina, said on Wednesday that it had bought the sugar stake for "strategic" reasons.

"We will fight for control of Azucarera Espanola," Mr Escamez told a Spanish newspaper yesterday. Although Banco Central officials said they had not expected to buy the Banesto stake because it was too expensive, the newspaper quoted Mr Escamez saying "we were surprised by the sale as we had clearly committed ourselves to the sector and the company."

Mr Escamez' displeasure is easy to understand. The Spanish sugar industry, protected like most of its European Community counterparts by a strict production quota regime, is undergoing profound changes in ownership in which it has been assumed until now that Banco Central would play a large role. Central already has about 13 per cent of Azucarera and wants to increase that.

Sugar is a comfortable, profitable business in Spain. The three companies that dominate the Spanish industry, Ebro, Industrias Agricolas and Azucarera, with sales between them last year of more than Pta115bn, have at least until 1995 to streamline their productive and marketing processes.

The EC quota regime allows Spain to produce slightly more sugar, 1m tonnes a year, than it consumes and intervention prices guaranteed by the Community for Spanish sugar are higher than the EC average. But, with an eye on the eventual liberalisation of the market, Ebro, now ultimately controlled by the Kuwaiti Investment Office (KIO) has initiated a merger with Industrias Agricolas. The process is quite advanced and Banco Santander, banker to the Kuwaitis in Spain, has been trading sugar stocks heavily since late last year in order to ensure a clean, trouble-free merger for its clients.

The Ebro-Agricolas merger would leave Azucarera at a considerable competitive disadvantage in a liberalised market.

The Spanish refiners traditionally hold abundant hidden assets, mainly in land, and Azucarera is no exception. With one foot already in a comfortable, protected, industry, Mr Escamez is unlikely to be put off sugar by Banesto's stake going to London.

Moller rises in spite of tough liner competition

By Hilary Barnes in Copenhagen

A.P. MOLLER, the Danish shipping and oil and gas concern, increased pre-tax profits from DKr1.33bn ($206.6m) to DKr2.11bn and net profits from DKr1.02bn to DKr1.62bn last year.

An increase from 33 to 38 per cent in the dividend to a total of DKr139m was proposed.

Pre-tax profits in the tanker and liner shipping partnership were up from DKr801m to DKr1.23bn, but this included DKr347m from the sale of ships, while in 1988 the proceeds from ship sales were booked in the balance sheet, which leaves the operating profit more or less unchanged.

Moller referred to tough competition in liner shipping, which had prevented significant increases in rates despite high capacity utilisation and gains in market shares for the group.

Profits in the oil and gas partnership were up from DKr656m to DKr892m after financial items and depreciation, and from DKr51m to DKr97m after tax.

The turnover figures for the associated companies were published for the first time, revealing turnover in the shipping partnership of DKr17.94bn last year and in the oil and gas partnership DKr2.5bn.

BASF plans bonus pay-out

BASF will raise its regular 1989 dividend by 8 per cent to DM13 ($7.78) per share from DM12, and will pay an additional bonus of DM1 to celebrate its 125th anniversary, it said yesterday, reports AP-DJ.

The dividend announcement by the West German chemical group had been expected by analysts after BASF last month reported an 18 per cent jump in 1989 group pre-tax earnings to a record DM4.38bn from DM3.73bn in 1988.

Yesterday BASF said group net income surged 42 per cent to DM2bn in 1989 from DM1.4bn a year earlier.

Administrators seek maximum Atlantic assets

By David Owen, Robert Rice and Terry Dodsworth in London

THE ADMINISTRATORS put into Atlantic Computers, British & Commonwealth Holdings' troubled computer leasing subsidiary, have been given the task of realising as much as possible from Atlantic's assets.

Price Waterhouse confirmed yesterday that it had been appointed under the 1986 Insolvency Act for the sole purpose of achieving a more advantageous realisation of Atlantic's assets than would be effected on a winding up.

The act provides for other purposes – including achieving the survival of the company as a going concern – but these have not been used in this case.

The administrators say they are "reviewing the financial position of all operating subsidiaries," and have received "approaches from potential buyers interested in various parts of the operations." Yesterday, 180 UK redundancies were announced.

Meanwhile, further disagreement emerged as to precisely when the full extent of Atlantic's difficulties became apparent, following a statement by Mr David McCormick, the chief executive of the leasing group whom B&C says was suspended on March 28.

"The full magnitude of Atlantic's problems was reported to certain board members of B&C more than a year ago following a review of the potential liabilities which I instigated," according to Mr McCormick's statement.

B&C continues to maintain that the "full enormity" of Atlantic's position only came to light in the past two weeks.

The bulk of yesterday's redundancies came at Atlantic Computer Systems, the principal leasing subsidiary. Staff reductions were necessary said the administrators because ACS "does not have credit lines available to fund purchases of equipment."

● Singer & Friedlander, the merchant bank, is interested in buying in the 10.4 per cent of its shares held by B&C "at the right price." The bank said that it has been talking actively with B&C over the past six months. Singer & Friedlander's shares rose 1p to 61p yesterday, valuing B&C's stake at more than £14m.

Bongrain climbs 13.5% and predicts further rise

By William Dawkins in Paris

BONGRAIN, the dairy, pork products and restaurant group which is France's largest specialist cheese producer, yesterday unveiled a 13.5 per cent rise in net annual profits on a 29 per cent increase in sales.

The group, built up by Mr Jean-Noël Bongrain over the past 40 years from the small dairy owned by his family, and which now numbers Caprice des Dieux and St-Moret among its top cheese brands, is predicting another rise in profits and sales for the current year.

Turnover rose to FFr8.48bn ($1.5bn) from FFr6.58bn last year, although the underlying rate of year-on-year growth fell from 29 per cent to 8.8 per cent, adjusting for exchange rate changes and the impact of eight cheese and dairy acquisitions in Europe, the US and Brazil.

Net profits rose from FFr344.1m to FFr390.6m. About 45 per cent of sales came from France, with 25 per cent in the rest of Europe, 26 per cent in the US and the balance in Australia and Brazil.

The takeovers added about FFr2bn to a full year's sales. They included Altadena, a FFr800m turnover US dairy group, which contributed a loss; Aiuruoca a leading Brazilian cheese maker; and Millway Foods, a British producer of Stilton cheese.

Fiat Auto forecasts promising earnings

By Haig Simonian in Turin

EARNINGS for 1989 at Fiat Auto, the automobile producer which accounts for about half the turnover of Italy's Fiat group, will be "quite encouraging," Mr Luigi Francione, the joint general manager of Fiat Auto, said.

Profits will be "at least in line with results of the previous year, and perhaps a little better," he added. Prospects for the current year already appear promising based on first-quarter figures, with output running at full capacity.

Boosted by the introduction of the new Tempra medium-sized saloon, which sold about 20,000 units between its introduction in late February and the end of March, Fiat sales in Italy rose 5 per cent in the first three months of this year.

Fiat appears poised to raise its current 18 per cent stake in ZCZ, the Yugoslavian car manufacturer which sells under the Yugo marque.

Although cautious about the possibility of taking a majority stake, Mr Paolo Cantarella, joint general manager of Fiat Auto, admitted: "Further developments and co-operation with ZCZ are being analysed" although a decision depended on many factors.

Among the possibilities are that Fiat will raise its ZCZ stake to 50 per cent, but not necessarily take an absolute majority, analysts suggest. But, the two manufacturers are already tightening their links, with an Innocenti-badged version of Yugo's Koral saloon going on sale in Italy next month.

UPM merger plans deferred

FINLAND'S United Paper Mills (UPM) said plans to merge the company with Rauma-Repola, the Finnish forest products and engineering group, had been deferred, writes Our Financial Staff.

UPM said a merger motion at a UPM shareholders' meeting was withdrawn after 30 shareholders representing 13.4m of its 31m shares became unhappy with the deal.

Notice of Redemption
To the Holders of

Whitman Finance Corporation N.V.

(formerly IC Industries Finance Corporation N.V.)

Sinking Fund Zero Coupon Bonds Due 1994

NOTICE IS HEREBY GIVEN, that pursuant to the provisions of Section 5 of the Fiscal and *Paying Agency Agreement dated May 15, 1982 among* IC Industries Finance Corporation N.V. (now Whitman Finance Corporation N.V.) (the "Company"), IC Industries, Inc. (now Whitman Corporation), as Guarantor, and The Chase Manhattan Bank, N.A., as Fiscal Agent and Paying Agent, $58,258,000 aggregate principal amount of the Company's Sinking Fund Zero Coupon Bonds Due 1994 (the "Bonds") will be redeemed, through operation of the sinking fund, on May 15, 1990 (the "Redemption Date"), at a redemption price equal to 58.692% of the principal amount of the Bonds to be redeemed (the "Redemption Price").

OF THE BONDS TO BE REDEEMED, BONDS REPRESENTING AN AGGREGATE PRINCIPAL AMOUNT OF $53,798,000 HAVE BEEN DETERMINED TO BE ON DEPOSIT IN THE EUROCLEAR SYSTEM OR IN CENTRALE DE LIVRAISON DE VALEURS MOBILIERES S.A. THE CERTIFICATE NUMBERS OF SUCH BONDS HAVE BEEN COMMUNICATED DIRECTLY TO THE OPERATORS OF SUCH CLEARING SYSTEMS.

In addition to the Bonds held by the clearing systems mentioned in the preceding paragraph, the following Bonds have also been selected by the Fiscal Agent for redemption on the Redemption Date:

5	16891	17304	33675	34115	34640	35135	35601	36135	36563	37788	38179	38600	39049	39440	44914	45494	54408	54859	55339	55770	56200	56705	57124	57591	96307	97237	97659	106085	107549	109078
12	16893	17305	33681	34118	34650	35136	35613	36143	36565	37789	38184	38601	39051	39441	44916	45495	54419	54864	55346	55773	56205	56707	57125	57592	96311	97243	97660	106086	107550	109082
13	16895	17308	33685	34121	34651	35139	35614	36147	36566	37790	38189	38603	39054	39442	44917	45499	54424	54865	55356	55774	56206	56714	57128	57597	96312	97253	97665	106089	107553	109083
21	16898	17316	33686	34123	34652	35140	35615	36150	36567	37793	38191	38606	39058	39444	44918	45501	54425	54871	55360	55776	56208	56716	57136	57598	96320	97259	97666	106096	107558	109085
22	16901	17317	33688	34127	34657	35141	35619	36151	36572	37794	38192	38611	39061	39445	44925	45502	54429	54876	55365	55777	56211	56723	57137	57606	96325	97261	97667	106102	107569	109086
24	16902	17320	33691	34133	34661	35146	35623	36154	36573	37797	38195	38616	39066	39446	44927	45506	54430	54879	55367	55779	56218	56725	57149	57607	96327	97262	97668	106104	107572	109093
27	16904	17323	33694	34139	34662	35147	35639	36159	36575	37798	38197	38617	39068	39447	44932	45508	54434	54880	55368	55781	56226	56726	57151	57614	96331	97265	97675	106106	107579	109096
29	16906	17324	33697	34141	34663	35151	35641	36163	36576	37799	38198	38618	39081	39451	44933	45509	54440	54882	55369	55786	56232	56727	57156	57615	96333	97268	97677	106108	107580	109105
30	16908	17326	33698	34148	34664	35157	35642	36165	36577	37801	38199	38619	39084	39452	44934	45510	54441	54890	55374	55788	56239	56734	57167	57617	96334	97269	97680	106109	107584	109106
32	16911	17331	33699	34151	34670	35158	35643	36166	36581	37806	38200	38621	39088	39456	44940	45511	54442	54896	55377	55794	56243	56738	57168	57619	96336	97276	97682	106111	107585	109122
44	16915	17333	33701	34155	34672	35163	35646	36174	36588	37807	38201	38623	39089	39461	44941	45519	54445	54898	55380	55799	56251	56740	57173	57620	96348	97278	97685	106113	107587	109126
45	16917	17335	33703	34161	34677	35167	35647	36177	36589	37809	38204	38628	39091	39465	45085	45520	54446	54899	55382	55806	56256	56747	57177	57623	96350	97286	97686	106115	107592	109129
47	16922	17828	33709	34162	34685	35168	35649	36181	36592	37812	38209	38631	39092	39466	45087	45521	54447	54901	55386	55810	56258	56750	57182	57624	96353	97287	97690	106118	107593	109132
51	16923	17829	33711	34166	34690	35169	35650	36185	36593	37818	38214	38634	39094	39467	45088	45524	54454	54903	55390	55811	56261	56754	57183	57625	96359	97289	97692	106122	107594	109134
53	16925	17840	33713	34170	34697	35171	35652	36186	36597	37821	38215	38636	39095	39468	45091	45526	54464	54905	55391	55812	56263	56757	57186	57628	96361	97290	97694	106124	107599	109135
56	16927	17841	33716	34176	34702	35172	35653	36189	36599	37822	38220	38639	39100	39469	45096	45527	54473	54911	55392	55819	56264	56764	57188	57630	96362	97294	97696	106125	107600	109137
58	16931	17842	33717	34179	34703	35174	35655	36190	36601	37826	38222	38649	39105	39471	45102	45529	54478	54912	55394	55833	56269	56772	57189	57631	96364	97295	97697	106128	107704	109140
61	16932	17846	33720	34181	34706	35178	35662	36191	36602	37827	38223	38650	39108	44476	45103	45530	54481	54914	55396	55836	56274	56775	57190	57632	96366	97297	97698	106129	107708	109145
131	16934	17850	33725	34184	34707	35179	35666	36192	36603	37828	38228	38654	39110	44477	45111	45531	54482	54915	55398	55840	56275	56776	57192	57634	96367	97298	97705	106130	107709	109150
133	16939	17852	33726	34187	34712	35180	35669	36196	36605	37830	38233	38655	39111	44479	45112	45538	54486	54916	55406	55842	56276	56779	57193	57635	96374	97301	97707	106132	107712	109153
135	16944	17855	33728	34188	34714	35187	35670	36198	36607	37837	38235	38656	39113	44481	45114	45540	54491	54918	55413	55848	56277	56783	57196	57649	96379	97305	97713	106139	107713	109154
138	16952	17856	33732	34189	34730	35196	35673	36199	36609	37839	38236	38657	39115	44482	45115	45543	54492	54919	55416	55851	56282	56786	57204	57652	96381	97313	97715	106142	107716	109156
226	16955	17858	33733	34195	34731	35199	35679	36200	36611	37843	38240	38658	39116	44495	45117	45545	54499	54922	55419	55852	56285	56789	57205	57653	96387	97321	97721	106143	107717	109158
228	16957	17860	33736	34197	34733	35204	35684	36201	36612	37849	38241	38664	39120	44505	45127	45546	54502	54924	55420	55856	56288	56790	57210	57657	96389	97322	97724	106145	107720	109159
381	16958	17862	33738	34206	34736	35210	35687	36202	36616	37850	38253	38665	39123	44508	45128	45548	54503	54925	55423	55857	56290	56793	57212	57667	96395	97324	97725	106149	107722	109163
384	16960	17868	33742	34207	34740	35211	35690	36207	36617	37852	38257	38669	39127	44509	45131	45549	54505	54926	55426	55859	56295	56796	57214	57668	96400	97325	97729	106150	107723	109169
388	16962	17869	33743	34211	34741	35212	35698	36211	36620	37857	38265	38687	39128	44511	45138	45550	54507	54928	55427	55865	56296	56797	57218	57669	96401	97326	97733	106152	107725	109170
389	16965	17870	33749	34213	34743	35213	35699	36218	36624	37859	38270	38688	39130	44512	45139	45556	54508	54930	55436	55866	56298	56798	57219	57672	96405	97327	97736	106154	107730	109171
393	16966	17871	33751	34216	34750	35216	35705	36221	36626	37860	38271	38691	39132	44520	45140	45557	54510	54931	55442	55870	56299	56801	57221	57675	96409	97328	97737	106158	107731	109176
395	16968	17872	33754	34220	34752	35218	35706	36222	36631	37862	38275	38694	39134	44521	45141	45559	54513	54934	55445	55872	56300	56804	57222	57676	96411	97329	97744	106165	107738	109177
396	16974	17874	33756	34221	34753	35231	35710	36224	36826	37864	38277	38696	39136	44526	45142	45561	54514	54937	55447	55873	56302	56805	57230	57678	96415	97330	97747	106166	107739	109179
408	16977	17878	33763	34234	34756	35232	35711	36227	36829	37865	38284	38698	39138	44532	45143	45562	54517	54942	55451	55874	56304	56807	57232	57681	96419	97331	97750	106167	107741	109180
411	16978	17881	33766	34235	34761	35233	35714	36228	36831	37871	38286	38700	39140	44534	45148	45563	54522	54943	55452	55876	56308	56808	57235	57684	96423	97333	97756	106171	107742	109184
412	16982	17884	33767	34237	34765	35235	35716	36231	36833	37873	38287	38704	39142	44537	45151	45564	54523	54944	55453	55878	56309	56809	57236	57686	96424	97336	97761	106173	107747	109190
422	16984	17890	33771	34238	34778	35239	35718	36235	36834	37874	38291	38708	39143	44541	45155	45566	54525	54947	55454	55885	56312	56810	57237	57689	96429	97341	97763	106175	107749	109192
424	16987	17892	33772	34241	34779	35248	35721	36241	36837	37880	38299	38709	39145	44542	45159	45567	54527	54951	55455	55887	56313	56814	57239	57690	96430	97342	97768	106177	107750	109195
426	16988	17894	33773	34243	34781	35249	35722	36242	36841	37881	38301	38710	39146	44545	45160	45572	54530	54954	55457	55888	56317	56816	57240	57691	96432	97348	97770	106178	107751	109196
427	16991	17898	33779	34246	34782	35253	35736	36243	36844	37882	38304	38713	39149	44547	45164	45573	54532	54957	55461	55889	56318	56826	57245	57695	96434	97353	97774	106179	107753	109203
429	16996	17899	33780	34260	34785	35255	35744	36244	36850	37885	38312	38714	39156	44548	45169	45574	54533	54958	55463	55893	56320	56837	57246	57697	96436	97356	97775	106190	107758	109206
443	16998	17901	33783	34265	34786	35256	35751	36247	36852	37886	38315	38716	39158	44552	45173	45575	54535	54966	55464	55896	56326	56841	57255	57699	96440	97362	97778	106192	107759	109208
449	16999	17903	33790	34269	34788	35257	35754	36248	36856	37887	38319	38718	39160	44553	45175	45576	54537	54967	55466	55897	56327	56842	57257	57702	96443	97363	97779	106197	107765	109217
450	17000	17904	33791	34273	34792	35258	35757	36251	36857	37891	38320	38719	39161	44556	45177	45577	54540	54975	55470	55899	56330	56845	57262	57704	96444	97367	97781	106203	107768	109220
453	17005	17914	33792	34274	34797	35268	35762	36254	36864	37894	38321	38721	39162	44560	45179	45578	54545	54976	55475	55903	56333	56847	57265	57706	96445	97368	97785	106204	107772	109221
456	17006	17916	33794	34275	34800	35273	35767	36256	36869	37896	38326	38729	39163	44561	45183	45579	54546	54977	55476	55907	56337	56852	57270	57710	96446	97375	97786	106215	107773	109224
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465	17010	17923	33808	34279	34805	35279	35775	36261	37475	37902	38334	38737	39166	44566	45187	45584	54553	54981	55480	55912	56340	56859	57276	57714	96501	97377	97792	106223	107782	109231
467	17011	17924	33811	34280	34806	35286	35779	36265	37477	37907	38342	38740	39167	44568	45190	45585	54555	54982	55481	55913	56341	56860	57279	57721	96503	97379	97795	106227	107785	109238
469	17012	17925	33813	34282	34810	35287	35783	36268	37478	37912	38343	38743	39170	44569	45192	45587	54563	54984	55482	55915	56344	56863	57286	57723	96504	97381	97797	106229	107787	109242
473	17021	17930	33814	34291	34813	35291	35784	36270	37484	37916	38344	38744	39171	44570	45193	45590	54565	54988	55488	55918	56346	56864	57289	96007	96505	97384	97802	106233	107789	109243
474	17022	17935	33816	34293	34819	35293	35785	36273	37488	37919	38347	38745	39173	44573	45195	45592	54566	54990	55491	55919	56347	56867	57291	96008	96507	97385	97803	106239	107791	109246
478	17025	17939	33817	34294	34820	35296	35786	36274	37490	37921	38353	38747	39174	44575	45202	45595	54570	54993	55502	55922	56349	56868	57293	96010	96508	97388	97805	106242	107798	109250
480	17031	17940	33818	34295	34821	35297	35788	36280	37493	37922	38356	38750	39179	44578	45203	45596	54574	54994	55505	55923	56350	56869	57295	96023	96514	97390	97806	106243	107804	109251
483	17032	17943	33819	34297	34824	35303	35791	36287	37496	37923	38368	38762	39181	44579	45218	45598	54575	54996	55510	55925	56354	56874	57305	96024	96516	97393	97810	106245	107805	109255
489	17034	17949	33820	34302	34825	35314	35794	36289	37497	37924	38374	38764	39182	44580	45220	45602	54579	55005	55512	55926	56356	56875	57308	96031	96517	97396	97812	106247	107808	109259
490	17036	17951	33822	34315	34831	35323	35799	36291	37498	37928	38375	38766	39183	44585	45225	45604	54586	55006	55515	55928	56358	56876	57312	96043	96518	97399	97814	106251	107809	109266
493	17037	17954	33823	34316	34832	35327	35800	36293	37499	37930	38377	38768	39184	44587	45228	45607	54588	55009	55517	55932	56359	56878	57313	96044	96525	97403	97815	106256	107810	109269
501	17039	17955	33826	34319	34837	35329	35801	36299	37500	37935	38380	38769	39185	44589	45229	45614	54591	55010	55518	55942	56360	56887	57322	96048	96527	97404	97821	106261	107813	109274
502	17040	17956	33827	34323	34839	35335	35808	36301	37505	37938	38384	38775	39187	44591	45233	45622	54595	55012	55519	55943	56367	56888	57323	96049	96528	97405	97825	106262	107816	109276
503	17042	17969	33831	34325	34840	35341	35809	36302	37506	37941	38385	38776	39189	44594	45234	45627	54596	55013	55520	55944	56372	56889	57324	96051	97002	97406	97829	106263	107825	109291
505	17045	17973	33836	34332	34845	35342	35810	36303	37517	37944	38386	38780	39192	44599	45249	45630	54597	55014	55522	55947	56375	56890	57327	96054	97010	97408	97833	106264	107829	109294
511	17048	17976	33838	34333	34847	35346	35814	36308	37520	37946	38390	38784	39193	44604	45250	45632	54598	55016	55527	55954	56376	56894	57331	96057	97011	97415	97838	106268	107833	109296
513	17049	17981	33839	34338	34848	35348	35817	36310	37523	37949	38393	38789	39194	44610	45251	45637	54603	55033	55531	55957	56381	56896	57332	96058	97012	97423	97841	106270	107837	109297
520	17051	17988	33845	34340	34849	35349	35820	36313	37526	37950	38397	38791	39195	44611	45252	45644	54611	55035	55533	55960	56382	56900	57336	96059	97018	97428	97845	106274	107844	109298
522	17054	17991	33847	34343	34855	35350	35822	36315	37529	37954	38400	38797	39196	44613	45253	45645	54612	55036	55537	55965	56385	56901	57340	96060	97025	97429	97846	106276	107845	109299
523	17055	17996	33849	34353	34861	35353	35827	36319	37536	37959	38403	38799	39198	44620	45254	45650	54617	55037	55538	55968	56386	56903	57343	96061	97029	97431	97849	106280	107846	109304
527	17063	17998	33850	34354	34863	35356	35828	36322	37540	37965	38404	38800	39199	44628	45257	45652	54623	55038	55542	55969	56389	56904	57355	96062	97037	97432	97850	106281	107851	109305
529	17066	17999	33853	34355	34865	35357	35836	36329	37543	37966	38405	38803	39200	44630	45260	45658	54624	55042	55543	55970	56391	56905	57359	96063	97039	97433	97851	106288	107854	109355
534	17068	18004	33862	34357	34869	35358	35837	36339	37544	37967	38410	38805	39201	44632	45264	45660	54625	55043	55550	55974	56392	56909	57363	96065	97040	97436	97852	106289	107855	109358
538	17069	18006	33866	34364	34882	35362	35840	36341	37545	37969	38414	38809	39204	44634	45265	45662	54627	55048	55554	55977	56398	56911	57364	96074	97043	97437	97855	106291	107858	109360
539	17070	18007	33870	34369	34883	35363	35844	36343	37546	37974	38415	38811	39205	44635	45267	45663	54628	55055	55556	55979	56404	56915	57373	96076	97044	97442	97856	106300	107859	109380
542	17073	18010	33875	34378	34885	35369	35846	36347	37552	37982	38417	38812	39208	44636	45268	45670	54630	55059	55558	55980	56409	56920	57374	96079	97047	97443	97858	106305	107863	109382
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16885	17302	33672	34110	34632	35129	35595	36123	36561	37778	38170	38591	39046	39437	44909	45489	54405	54857	55336	55762	56193	56702	57116	57585	96295	97233	97638	106079	107541	109073	
16890	17303	33673	34114	34635	35130	35597	36128	36562	37784	38174	38592	39047	39439	44913	45492	54407	54858	55337	55765	56194	56703	57118	57589	96301	97235	97655	106080	107546	109074	

On the Redemption Date, the Redemption Price will become due and payable upon each Bond to be redeemed in such coin or currency of the United States as at the time of payment is legal tender under United States laws for the payment of public and private debts. Amortization of original issue discount on the Bonds to be redeemed will cease to accrue on and after the Redemption Date. Payment of the Redemption Price will be made on and after the Redemption Date upon presentation and surrender of the Bonds to be redeemed at the offices of any of the following paying agencies:

The Chase Manhattan Bank, N.A.
Municipal Securities
1 New York Plaza, 14th Floor
New York, NY 10081
Attn: Margaret Steverson

The Chase Manhattan Bank, N.A.
Woolgate House
Coleman Street
London EC2P 2HD

Chase Manhattan Bank Luxembourg S.A.
5 Rue Plaetis
Luxembourg-Grund
Luxembourg

Chase Manhattan Bank (Switzerland)
Postfach 162, 8027
8022 Zurich
Switzerland

N.B. Presentations to
Chase Manhattan Bank (Switzerland)
should be directed to the
Operations Centre at 63 Rue due Rhone
P.O. Box 476, 1204 Geneva 3, Switzerland

It is required by the Internal Revenue Service that if you are a citizen of the United States you must provide your Social Security number when submitting Bonds for redemption.

WHITMAN FINANCE CORPORATION N.V.

By: The Chase Manhattan Bank, N.A.
as Fiscal Agent and Paying Agent

Dated: April 14, 1990

CHASE

Anglo American results hit by industrial action

By Philip Gawith in Johannesburg

RESULTS FROM the six gold mines managed by Anglo American Corporation, the South African industrial and mining conglomerate, show that activities on a number of mines were hampered by industrial action and other production problems during the March quarter.

The industrial action echoes the experience of other mining groups and is expected to continue in the current quarter. Despite of its reputation as the most liberal of the mining houses, Anglo has suffered most from industrial unrest.

Worst hit was Vaal Reefs, the second largest of the group's mines, which had a poor quarter. A manager estimated that more than 26,000 shifts, effectively two to three days of production, were lost because of industrial action in the last quarter.

According to Mr Lionel Hewitt, general manager of the gold and uranium division, striking black workers had two significant grievances: they alleged racial discrimination in the hoisting of workers to the surface and in acclimatisation tests.

The group denies these allegations. In many instances matters have not been helped by the backlash from white miners who have refused to go underground unless protected.

Production was also hampered by a shortage of working face and seismic activity, especially in the South Lease area. This aggravated the ability to open up sufficient ore reserves, but efforts are being made to increase the reserves and management does not expect the problems to persist.

The 7 per cent drop in area mined over the previous quarter was reflected in a 17 per cent increase in costs per kilogramme of gold produced. Pre-tax profit, at R146m (US$33.5m), was down 33 per cent on the previous quarter's R217.3m.

Production at Western Deep Levels continued to suffer from a fire that took place in October. The area should be back at full production in the third quarter. Although costs were kept tight, a 5 per cent drop in the amount of gold produced was reflected in a drop in pre-tax profit to R97.4m from R107.3m.

At Elandsrand production was adversely affected by planned mill modifications and a decline in grade. Pre-tax profit dropped dramatically to R32.1m from R52.1m on the back of a 17 per cent decline in gold produced. But Mr Hewitt said that approximately 60,000 tonnes of higher grade ore were stockpiled during the quarter and this would be brought to account by the end of the year.

The other Transvaal operation, Ergo, which recovers gold and uranium from old mine dumps lifted pre-tax profit to R29.8m from R22.3m despite trouble from unseasonal rains and power failures.

Freegold, the world's largest gold mine, managed to lift profits 15 per cent over the previous quarter to R184.4m. This was achieved according to the policy outlined a year ago of producing lower volumes, but higher grades. The mine also suffered from industrial action and from a tornado which hit Welkom in mid-March.

Bankers Trust venture

By Jim Bodgener in Ankara

BANKERS Trust, the large US wholesale bank, and Turkpetrol, a leading Turkish distributer of refined petroleum products and petrol station operator, yesterday received approval from the Ankara State Planning Organisation to set up the country's first venture capital company, Turtrust.

The venture will be be capitalised at $50m.

It is the latest in an increasing trend of foreign investor interest in Turkey. It will inject equity into viable companies or developments which are experiencing financing bottlenecks and will concentrate initially on the tourism and leisure sectors. Once the companies have been brought to profitability, Turtrust plans to sell its equity and reinvest the proceeds.

It hopes to begin operating in the summer, pending approval from the Industry Minister.

Kanebo's struggle for prosperity

Alice Rawsthorn on the impact of the falling yen on textile groups

The fall – and further fall – of the yen on the foreign exchange markets may have caused chaos on the Tokyo Stock Exchange and consternation in Japan's Ministry of Finance, but for some Japanese companies it has been a blessing.

One of those companies is Kanebo. Throughout the 1980s Kanebo, in common with the other large Japanese textile and fibre groups, watched the apparently inexorable rise of the of yen with ill-disguised alarm.

At a time when other Japanese industries were benefiting from buoyant exports and booming domestic demand, the textile sector struggled against the parallel problems of dwindling exports and increasing imports. The chief cause of its problems was the strength of the yen.

Even the giants of the industry such as Kanebo, one of the oldest Japanese industrial companies and now the world's biggest single textile group, were not spared. Kanebo began the 1980s in the red and has now, after a painful period of cost-cutting, steered itself back to stability. The challenge for Kanebo in the 1990s is to turn that stability into a longer term recovery. The fall of the yen could scarcely have been better timed.

Kanebo began in business as a small spinning mill – the Tokyo Cotton Trading Company – in 1886 at the dawn of the Meiji period of Japanese industrialisation. The Kanebo of today, run from Osaka, is involved in every part of the textile production process from fibres, through spinning and weaving to sewing the finished garments. It is the world's most diversified textile group, being involved with all three synthetic fibres and the three main natural fibres too.

THE FIVE LARGEST INTERNATIONAL TEXTILE GROUPS IN 1983

Company/Rank	Country	Turnover (£bn)	Workforce
1. Kanebo	Japan	2.4	9,086
2. Coats Viyella	UK	2.1	41,300
3. Armstrong	US	1.7	25,941
4. Chargeurs	France	1.7	22,126
5. Milliken	US	1.6	14,000*

*Estimate.
Source: Textil-Wirtschaft.

By the early 1980s Kanebo was in trouble. The Japanese textile companies, which originally concentrated on commodity goods for their domestic market, had suffered severely in the oil price crises of the 1970s when raw material costs increased and the yen strengthened against other currencies.

Their problems continued and accelerated after the Plaza Accord in 1985 when the yen rose even more rapidly on the foreign exchange markets. Textile imports poured into Japan and the Japanese companies' exports declined dramatically. The index of textile production fell from 100 in 1980 to 93 in 1987, at a time when the index for all Japanese manufacturing rose from 100 to 125. The level of textile import penetration doubled from 16 to 37 per cent between 1980 and 1988. The balance of trade in textiles swung into deficit.

A company such as Kanebo was dealt a double blow. First, its textile interests were hit by increasing imports. Second, its fibre subsidiaries suffered from the problems of their customers in other Japanese companies. Moreover, all its companies were exposed on the export front.

Kanebo, along with other groups such as Toray and Teijin, was forced to resort to rationalisation. Two years ago it withdrew from viscose production and closed its Hofu plant. It also merged some of its textile companies and redirected others towards more up-market products.

The rationalisation involved substantial job losses in fibres and textiles. Yet, in common with other Japanese companies, Kanebo offers its employees jobs for life and redeployed its textile workers in its expanding cosmetics and pharmaceutical companies.

Kanebo has also reviewed its products. The strategy across all its activities has been to move up-market. In fibres, it is expanding in the fine denier products where the Japanese have a technical edge over their western competitors.

One of the main areas of expansion in textiles is its liaison with Christian Dior, the French fashion house owned by the Agache industrial group. Kanebo is now increasing its licensing activities for Dior in Japan.

KANEBO RESULTS

Year	Sales (Ybn)	Earnings* (Ybn)
1985	326.5	7.3
1986	330.8	8.1
1987	352.5	6.1
1988	381.8	7.2
1989	481.6	9.1

*before extraordinary items.
Source: Kanebo.

It is also attempting to strengthen its presence in its export markets by localising production. Last year it opened a new spinning mill in Georgia in the US. The mill will offer a faster service to US customers and will also shelter Kanebo's business from the vagaries of exchange rates.

In the last year or so Kanebo has operated in a less competitive climate. The yen is still strong but the steep increase in South Korean and Taiwanese labour costs means that those countries are no longer quite so competitive against the Japanese. Also domestic demand is so buoyant that, although imports are increasing, the domestic producers are no longer suffering.

Kanebo has produced record results. It made net profits of Y2.9bn ($18.3m) on sales of Y481.6bn in its last audited financial year to March 1989. Analysts anticipate further growth for the recently completed year. But the profitability of its textile division is still dispiritingly low. Kanebo made just over half its sales from textiles and fibres last year, but little more than 10 per cent of its profits.

The restructuring of its textile companies continues. But by the end of the 1990s, whatever the level of the yen, Kanebo, the world's largest textile group, expects most of its turnover, as well as its profits, to come from new interests such as cosmetics and electronics . . . not from textiles.

Pioneer to sell stake in tin mining

By Bruce Jacques in Sydney

PIONEER International, the diversified Australian building products group, has continued to shore up its finances for the A$290m (US$223m) bid for Brick and Pipe Industries, announced this week.

Sir Tristan Antico, chairman, said yesterday the company had agreed to sell its 30 per cent stake in the separately-listed Pioneer Mineral Exploration (PME) to Malaysia Mining Corporation Berhad (MMC) for A$41.7m. The cash generated would help fund the purchase of Brick and Pipe, Australia's third biggest brick maker.

The proposed PME sale is at 95 cents a share, 22 cents above yesterday's market price. It will need to be approved by that company's shareholders, who are being asked to waive MMC's normal obligation to bid the same price for the remainder of the shares.

The sale is Pioneer's second big mineral asset divestment recently. The other was the sale of the company's mineral sands operations.

Shell Oil to sell healthcare unit

By Alan Archer in San Francisco

SHELL OIL, the US subsidiary of Royal Dutch/Shell, is to discontinue its involvement in healthcare following the announcement that it is seeking a buyer for its wholly-owned Triton Biosciences operation, based in Alameda, California.

Founded in 1983 to develop and market pharmaceuticals and diagnostics for cancer, viral diseases and other serious illnesses, Triton employs some 300 people and has a number of products in various stages of development.

Mr Davis Richardson, president of Shell Chemical and chairman of Triton, said: "Shell views Triton as a successful healthcare operation. However, after extensive review, Shell has decided Triton is not sufficiently related to its principal petrochemical business to retain for the long term."

Morgan Stanley New York has been engaged as Shell's financial adviser for the proposed sale, which could interest a number of European and Japanese companies wanting to buy into the US pharmaceutical market.

One potential purchaser could be Berlin-based Schering, which is on the lookout for a small, highly-innovative biopharmaceutical company. Triton might fit the bill.

Aluminium price fall hits Comalco

COMALCO, the aluminium producer 67 per cent owned by Australian resources group CRA, will report lower net profits for calendar 1990 than the A$310.9m (US$238.5m) for 1989 because of an anticipated fall in aluminium prices, according to Mr John Ralph, chairman, Reuter reports from Melbourne.

He said Comalco's first-quarter profit was lower than the 1989 quarter as prices and sales tonnages were both lower.

Aluminium prices had fallen since November 1989. Growth in world consumption might be slower than 1989, but was expected to remain positive.

INTERNATIONAL CAPITAL MARKETS

Treasuries stabilise after falling on weaker dollar

By Janet Bush in New York and Deborah Hargreaves in London

US TREASURIES continued to retreat yesterday morning as the dollar weakened against the Japanese yen, but price losses were less than on Tuesday and Wednesday.

At midsession, the Treasury's benchmark long bond was quoted $\frac{1}{16}$ point lower to *yield 8.84 per cent.*

The dollar was quoted at Y156.40, more than Y2 lower than the highest levels seen in New York and well below levels above Y160 seen this week. The strength of the US currency this year has provided a powerful underpinning for the Treasury market, and its softening trend this week has helped erode already fragile confidence.

Nevertheless, midsession bond levels were above earlier lows when long-dated issues were quoted ⅝ point lower, suggesting that the market may be stabilising after this week's collapse.

Behind the current loss of confidence is concern about inflationary pressures after this week's larger than expected rise in consumer prices, the prospect of significant new supply including the May quarterly refunding, expanded weekly bill auctions to finance the thrift bail-out and rumours of substantial Japanese selling.

The market was rife with unsubstantiated rumours on Wednesday about the Japanese Ministry of Finance requesting securities firms to be more controlled about their US investments as well as speculation about a possible rise in the Japanese discount rate.

These were not confirmed, but pointed to concern about Japanese demand for US paper and worry about rising interest rates abroad which would make the US market less attractive unless yields rise in tandem.

■ THE UK gilts market refused to find succour yesterday in a lower than expected *public sector borrowing figure* for March, and drifted downwards in light trading. The market continues its obsession with a high level of UK inflation, which was underscored yesterday when a brokerage house released a forecast for inflation of 10.6 per cent – almost 1 per cent higher than other houses had been suggesting.

The public sector borrowing figure for March came in at £1.6bn, which was below the £2.4bn forecast by most analysts.

It pushes the spectre of new gilts issuance slightly further into the future.

Gilts have also been depressed by the drop in the US Treasury bond market. The 11¾ per cent 2007 gilt dropped by ⅝ of a point to 96.01 as the futures contract fell even further.

Sentiment in the gilts market continues to be fragile as retail participants stay away from the market while it is in such bearish mood.

■ WEST GERMAN bonds took another tumble yesterday as the market followed US Treasuries downwards and continued its concern about German monetary union. Statements yesterday by the East German Prime Minister, Mr De Maiziere, calling for a one to one conversion rate for the East German Mark did not help sentiment in the West German bond market.

The benchmark 7¾ per cent 2000 bond was fixed slightly lower at 93.85 from a previous level of 94. Traders sold their holdings on the futures market in advance of the Bundesbank's regular meeting yesterday.

GOVERNMENT BONDS

BENCHMARK GOVERNMENT BONDS

		Coupon	Red Date	Price	Change	Yield	Week ago	Month ago
UK GILTS		10.000	4/93	91-18	+02/32	13.52	13.38	13.48
		10.500	5/99	87-30	-08/32	12.79	12.59	12.46
		9.000	10/08	79-18	-06/32	11.72	11.52	11.36
US TREASURY *		8.500	02/00	97-20	-01/32	8.86	8.63	8.62
		8.500	02/20	96-10	-03/32	8.85	8.59	8.57
JAPAN	No 119	4.800	6/99	86.2628	+0.192	7.30	7.30	7.28
	No 2	5.700	3/07	89.1005	+0.206	7.12	7.20	7.14
GERMANY		7.750	02/00	93.8500	-0.250	8.69	8.63	8.69
FRANCE	BTAN	9.000	02/95	95.6932	-0.142	10.15	10.02	10.55
	OAT	8.500	03/00	92.4600	-0.470	9.71	9.59	9.90
CANADA *		9.750	05/00	87.7500	-0.100	11.87	11.43	10.85
NETHERLANDS		7.750	01/00	92.2900	-0.140	8.95	8.93	8.99
AUSTRALIA		12.000	7/99	92.3780	+0.001	13.45	13.36	13.29

London closing, *denotes New York morning session
Yields: Local market standard. Prices: US, UK in 32nds., others in decimal

Technical Data/ATLAS Price Sources

BZW to trade stock baskets in Europe

By Deborah Hargreaves

BARCLAYS De Zoete Wedd said yesterday that it was to start trading baskets of European stocks for institutional clients which would track nine markets in Europe.

The brokerage house plans to construct the baskets to track benchmarks such as the FT-Actuaries, the Morgan Stanley Capital International and some local market indices. BZW will act as market maker in the baskets, which are based on stocks in the UK, West Germany, France, Switzerland, Italy, the Netherlands, Sweden, Spain and Belgium.

The service can be tailored to the needs of an institution and BZW will also offer a hedge in the form of an over-the-counter index option. The basket products cash in on a wave of interest in basket instruments, which are sold in the UK as a form of programme trading.

Other brokerage houses offer similar services and most will tailor a basket of stocks to an institution's requirements either by industry sector or by country.

The demand for cash baskets increased after the 1987 stock market crash, and there have been several attempts to trade them on a US exchange. A Swedish brokerage house, BCB Broker, recently launched its first much-vaunted cash basket based on Swedish stocks.

These baskets are listed on Reuters and cleared through *the European Options Clearing* Corp. BZW plans to launch a basket based on German stocks at the end of May, with a French basket to follow.

Broker fined for part in Repsol sale

By Tom Burns in Madrid

SPAIN'S stock market supervisory board, the Comision Nacional del Mercado de Valores (CNMV), has fined Madrid broker Maxwell y Espinosa Pta59m ($5.4m) for "very serious" misconduct during last year's part privatisation of Repsol, the Spanish oil conglomerate.

Maxwell y Espinosa, which handled 11.5 per cent of foreign portfolio investment in Spain during the second half of last year, is the second broking firm to fall foul of the CNMV as a result of Repsol's Pta135bn flotation, which took place in May 1989. It is unlikely to be the last.

A CNMV official yesterday said that a further three firms are currently under investigation in connection with the placement of the oil conglomerate's shares. The Repsol flotation, the biggest in Spain, coincided with the creation of the supervisory board under the chairmanship of Mr Luis Carlos Croissier, a former industry minister.

Last summer the Spanish subsidiary of Drexel Burnham Lambert, the US securities house, was fined Pta70m by the CNMV for using false names "applying" for Repsol shares to increase its percentage of Repsol shares during the flotation's placement period. DBL, currently facing criminal charges as a result of the Repsol flotation, has since closed its Spanish subsidiary.

Mr Robert Maxwell, a partner at Maxwell y Espinosa, said yesterday that the stockbroking firm "disagrees with the CNMV on the charge and will be appealing against the fine."

The CNMV official said Maxwell y Espinosa had violated Spanish market rules by acquiring, through intermediaries, Repsol shares which were part of the placement's tranche for *small Spanish* investors and then placing these at the same flotation price with investors outside Spain.

Chase acquires savings bank closed this week

CHASE MANHATTAN has acquired about $2.1bn in deposits and 13 branches of the Seamen's Bank for Savings which was closed this week by the Office of Thrift Supervision, Reuter reports.

Chase has agreed to pay a premium of $5 for the deposits to the Federal Deposit Insurance Corp.

The 13 branches will open tomorrow as part of Chase's Metropolitan Community Bank, and Seamen's depositors will become depositors of the assuming bank.

The Seamen's Bank for Savings, with total assets of $2.4bn, was closed by the Office of Thrift Supervision, and the Federal Deposit Insurance Corp was then named receiver.

FT INTERNATIONAL BOND SERVICE

Listed are the latest international bonds for which there is an adequate secondary market.

Closing prices on April 19

US DOLLAR STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Austria 9⅝ 93	140	100⅛	100⅝	-0⅛	-0⅝	9.41
B.F.C.E. 8⅝ 94	175	†95⅞	96⅜	-0¼	-0½	9.48
B.F.C.E. 9¼ 95	150	98½	99	-0½	-0⅞	9.52
Brit. Tel. Fin. 9⅜ 98	250	†97¾	98¼	-0⅝	-1⅝	9.71
Canada 9 96	1000	98½	99	-0⅝	-1¼	9.28
C.C.C.E 9¼ 95	300	98¾	99¼	-0⅜	-0⅞	9.50
Cr.Local France 8⅞ 99	250	94	94½	-0⅜	-1½	9.64
Credit National 7⅝ 92	100	96⅜	96⅞	-0⅛	-0¼	9.28
Credit National 9½ 92	160	†99¾	100¼	-0⅝	-0⅝	9.46
Denmark 8¼ 94	150	†95⅛	95⅝	-0¼	-0⅝	9.58
E.E.C. 7 91	100	96½	97	-0⅛	-0⅜	9.28
E.E.C. 10 93	140	†101⅛	101½	-0⅜	-0⅝	9.49
E.I.B. 8½ 99	*150*	*92½*	*93*	*-0⅝*	*-1½*	*9.68*
Eurofima 10⅛ 93	100	†101½	101⅞	-0⅜	-0⅝	9.45
Elec. De France 9½ 99	200	†98⅝	99⅛	-0⅝	-1⅝	9.69
Euro.Credit Card Tst.9 95	750	96⅞	97⅜	-0⅜	-0¼	9.76
Finland 9 96	250	97¼	97⅝	-0½	-1⅛	9.55
Finn.Exp.Cd. 8½ 92	200	98⅛	98⅝	-0¼	-0⅜	9.45
Finn. Exp. Cd. 9⅜ 95	200	†98⅞	99⅛	-0⅜	-0⅜	9.59
Ford Motor Credit 8 91	250	†98½	99	-0⅛	-0¼	0.09
G.E.C.C. 10½ 91	300	100⅞	101⅜	-0⅛	-0¼	0.09
G.M.A.C. 8¾ 94	500	†95⅞	96⅜	-0⅜	-0⅜	9.81
G.M.A.C. 9 96	300	96½	97	-0⅛	-0⅝	9.70
Gen.Mtrs.Corp. 9⅛ 92	200	†99	99½	-0⅛	-0⅜	9.47
Honda 9⅝ 97	300	98⅛	98½	-0⅝	-1⅛	9.98
IBM Credit Corp. 8⅝ 92	400	98¼	98¾	-0¼	-0⅜	9.27
IBM Credit Corp. 8⅞ 91	250	†98⅞	99⅜	+0¼	-0⅜	9.44
IBM Credit Corp. 9 92	250	99⅛	99½	-0⅜	-0½	9.34
IBM Credit Corp. 9½ 92	250	100⅛	100⅝	-0⅛	-0⅜	9.24
Italy 8½ 94	1500	96⅛	96½	-0½	-0⅞	9.53
Italy 9½ 95	1000	99½	100	-0⅜	-1	9.53
Italy 9⅝ 99	1000	99¼	99⅝	-0⅞	-1¼	9.72
Itoh C. W/W 4⅜ 94	1000	†95¼	96¼	-0⅝	+2½	5.72
Japan Dev. Bank 10 96	200	†101½	102	-0⅝	-1⅜	9.60
KFW Intl. Fin. 9 94	300	98⅛	98⅝	-0¼	-0¾	9.44
L.T.C.B.of Japan 8¾ 96	200	94⅝	95⅛	-0½	-1⅛	9.85
L.T.C.B.of Japan 9¼ 92	200	†98⅝	99⅛	-0⅜	-0⅝	9.72
New Zealand 9 94	850	97⅜	97¾	-0⅝	-0¾	9.70
Nippon Tel.&Tel. 8½ 96	200	94¼	94¾	-0⅝	-1⅛	9.64
Nippon Tel.&Tel. 9⅜ 98	250	97⅞	98⅜	-0⅜	-1⅜	9.69
Norway 8¾ 93	500	†98⅜	98⅞	-0¼	-0⅝	9.30
Oesters Kontbk. 9¼ 94	350	†99⅛	99⅝	-0⅜	-0¼	9.52
Sumitomo Corp. W/W 4 93	1500	104	105½	+1½	+3½	2.43
Sweden 8¾ 96	200	96½	97⅛	-0½	-1⅛	9.49
Toyota Mtr.Corp. W/W 4 93	1500	†102	103½	0	+0½	3.06
Victorian Rep 11⅜ 92	150	103⅜	103¾	-0¼	-0⅜	9.64
Union Bk. Switz. 9⅛ 02	225	94¾	95¼	-0⅝	-1⅜	9.85
World Bank 8⅜ 99	*1500*	*93⅞*	*94⅜*	*-0⅜*	*-1¾*	*9.04*
World Bank 9 97	300	†97½	98	-0⅜	-1	9.42
World Bank 9 93	300	99⅛	99½	-0⅜	-0¾	9.25
World Bank 9¼ 98	300	†97¾	98¼	-0⅜	-1¼	9.58
World Bank 9⅝ 99	500	99⅝	100	-0¼	-1⅝	9.63

Average price change... On day -0⅜ on week -0½

DEUTSCHE MARK STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Asian Dev. BK. 6 94	200	†88½	89	0	-0¼	9.05
Austria 6¾ 99	750	*86½	87	0	-0⅜	8.96
Bk.Frgn.Econ.USSR 7 96	750	*†88¾	89¼	0	-0½	9.44
Bank of Tokyo 5¾ 93	100	†91¾	92¼	-0⅛	-0¼	9.04
Commerzbank o/s. 5⅜ 93	300	†91½	92	0	-0¼	8.90
Credit Foncier 6¾ 99	500	*†86¼	86¾	0	-0½	9.01
E.I.B. 6¼ 99	600	†83⅞	84⅜	-0⅛	-0⅛	8.92
E.I.B. 6½ 99	300	*84⅞	85⅜	0	0	8.97
E.I.B. 6⅝ 96	600	†90½	91	+0⅛	0	8.67
E.I.B. 6⅞ 95	*300*	*†90½*	*91*	*0*	*0*	*9.04*
E.I.B. 8 2000	500	†96⅝	97⅛	0	+0¼	8.47
Euro.Coal& Steel 7¾ 94	100	*†96¼	96¾	0	+0¼	8.67
Eurofima 6¼ 96	100	†86¾	87¼	-1	0	9.08
Elec De France 5¾ 97	300	†82¾	83¼	-0½	-0⅛	9.07
Hydro-Quebec 6¾ 99	300	*85⅞	86⅜	0	-1	9.05
Japan Dev. Bk. 5⅜ 95	300	†85½	86	-0⅜	-0¼	9.02
Japan Finance 5¾ 97	100	†83¼	83⅝	0	-0⅜	9.12
I.A.D.B. 7¼ 99	300	†89½	90	-0⅛	-0¼	8.92
Ireland 6½ 97	300	†86½	87	0	-0⅜	9.13
Ireland 7⅛ 99	500	†88⅝	89⅛	-0⅛	-0⅜	9.08
Malaysia 6¼ 94	150	†89¼	89¾	0	-0¼	9.37
Nat. West BK. PLC 6 98	300	†82	82½	0	-1¼	9.22
Nippon Telg.&Tel. 6 95	400	†87⅛	87⅝	-0⅛	-0⅜	9.11
Oesters. Kontbk. 5 93	300	†90⅛	90⅝	0	+0⅛	9.05
Portugal 5⅜ 92	150	†93	93½	+0⅛	+0¼	9.12
Portugal 6⅝ 95	150	†89¾	90¼	0	-0½	9.07
Royal Insurance 5½ 92	300	†93½	94	-0⅛	-0¼	9.09
Turkey 6½ 95	500	†87¼	87¾	+0¼	+0½	9.74
Union Bk.Finland 5½ 94	200	*87⅞	88⅜	0	-0⅛	9.34
World Bank 6 98	500	*82	82⅝	0	-0⅛	9.05
World Bank. 6¼ 97	600	†85¼	85¾	0	-0⅛	9.05
World Bank 6¼ 99	600	†85⅞	86⅜	0	-0⅛	9.01

Average price change... On day 0 on week -0¼

SWISS FRANC STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
African Dev.Bk. 5 96	150	†83¾	84¼	-0⅛	-0⅛	8.37
Asfinag 5 03	100	†80	81	0	+0⅛	7.34
B.F.C.E. 4½ 98	200	†83¾	84½	+0⅛	+0⅜	7.11
B.M.W.Fin.Neth. 5 13	150	†71½	73½	+0⅜	0	7.56
Britannia B/S. 4¼ 94	100	†85½	86	0	-0½	8.46
CIR. Int. W/W 3 93	125	†84	84¼	0	+0¼	8.82
Credit Lyonnais 4¾ 00	100	†78¼	79	0	-0⅜	7.90
E.I.B 4⅝ 98	150	†82¼	82¾	+0¼	+0⅜	7.57
Finn. Exp. Cd. 8¼ 92	75	†96½	97½	+0⅛	+0¼	9.63
Fletcher Chall. 4⅞ 98	150	†75½	75¾	0	-0½	9.34
I.A.D.B. 6 2004	200	†85	86	-0⅛	-2	7.69
Kobe City 4⅜ 98	150	†81½	82	-0½	-0½	7.70
Leeds Perm. B/S. 4⅛ 93	200	†87½	87¾	0	0	9.03
Malaysia 5¼ 98	100	†78	80	+0⅞	-4⅞	8.96
Maxwell Comm.Crp. 5 95	150	†80½	80¾	-0¼	-0⅞	9.97
Nat.Bk. Hungary 5½ 94	75	†83	84	-0⅜	-0⅜	10.09
Nationwide Ang.B/S. 4 93	200	†86½	87	-0¼	-0⅜	8.99
Prov. Newfoundland 5 03	150	†78¾	79¼	-0⅜	-0⅝	7.50
Thailand 4⅜ 95	200	†85	85¼	0	-1⅞	8.23
World Bank 5 03	150	†81½	81¾	0	-0⅞	7.19

Average price change... On day 0 on week -0⅝

YEN STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Canada 6⅛ 91	80	98⅞	99⅛	0	+0⅛	0.07
Canada 5⅝ 93	80	95⅛	95⅜	+0⅛	0	7.30
Cr.Local France 6¼ 94	300	95	95¼	+0⅛	0	6.69
Denmark 6¼ 95	300	94⅞	95⅛	+0⅛	-0⅛	6.70
E.I.B. 4⅞ 93	30	93¾	94	+0⅛	-0⅛	7.31
Norway 5⅛ 95	50	91⅛	91⅜	+0⅛	0	7.29
Sweden 4⅜ 93	50	92½	92¾	+0⅛	0	7.39
World Bank 5⅛ 98	10	86¾	87	+0⅛	-0⅛	7.42
World Bank 7 94	20	98¾	99¼	+0⅛	+0⅛	7.29

Average price change... On day +0⅛ on week 0

OTHER STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Abbey Nat. 10¼ 94 C$	150	87⅞	88¼	-0⅜	-1⅜	14.07
Abbey Nat. 11⅜ 93 £	100	92⅜	92⅞	-0⅛	-0½	14.99
Aegon 7¾ 92 FL	100	97⅞	98⅜	0	+0⅜	8.06
Alg. Bk. Ned. 5¾ 93 FL	200	91⅛	91⅝	0	0	9.26
Austria 7½ 94 ECU	100	89¾	90¼	0	+0⅛	10.74
Barclays Aus.13½ 91 A$	100	98	98⅜	0	-0⅛	14.81
Bell Canada 10⅞ 04 C$	200	86⅛	86½	-2⅜	-2¼	13.00
BP Capital 9¾ 93 £	100	88⅛	88½	-0¼	-0½	14.91
British Airways 10 98 £	100	80⅞	81⅛	-0⅜	-1	14.14
Brit. Telecom 9½ 93 £	150	†88	89	-0⅛	-0⅛	14.62
Comm.Bk.Aust. 12⅛ 93A$	100	†95¼	95¾	0	+0⅜	14.50
Comm.Bk.Aus.13¼ 94 NZ$	60	101¼	102¼	+0⅛	0	13.13
Credit Foncier 9 96 Ecu	100	91⅞	92⅜	0	-0½	10.78
Credit Foncier 9⅛ 99Ecu	150	92⅛	92⅝	+0⅛	+1	10.60
CrLocalFran.10¼ 95 Ecu	225	98¾	99¼	0	+0⅛	10.50
Deut.Bk.Aus. 13⅜ 93 A$	125	97¾	98⅜	-0¼	-0¼	14.04
Deutsche Bk.Fin. 15 94 A$	100	102¼	102¾	0	-0⅛	14.13
Elec.De France 9¾ 99C$	150	82⅛	82⅝	-2¼	-2¼	13.09
E.I.B. 7 96 LFr	100	†90¼	91¼	0	+0½	9.12
E.I.B. 7⅛ 99 FL	150	88⅛	88⅜	0	0	8.98
E.I.B. 9 99 Ecu	150	90¾	91¼	0	-0½	10.60
E.I.B. 10 97 Ecu	800	96⅞	97⅛	0	0	10.62
Eurofima 7⅝ 94 Ecu	100	90⅝	91¼	+0⅛	-0⅛	10.66
Fed.Bus.Dv.Bk.9¾ 92 C$	75	†92½	93	-0⅞	-0⅞	13.87
Ford Cr.Can.10¼ 93 C$	100	†93	93½	-0⅞	-0⅞	13.75
Ford Cred.Can.10⅞ 96C$	125	†89	89½	-0¾	-1⅛	13.63
Ford Cred.Fund.10¼ 93£	60	88¾	89¼	-0⅛	-0⅜	14.88
G.M.A.C.Canada 11 3/494C$	100	93½	94⅛	-0⅞	-1¼	13.88
Heineken 7⅝ 94 FL	150	95½	96	0	0	8.13
Hydro-Quebec 11 99 C$	400	88¼	88½	-2¼	-2¼	13.30
Lloyds Bank 10⅛ 98 £	150	81	81½	-0½	-1	14.36
Lloyds Bank 11⅜ 98 £	100	†86⅝	87⅛	-0½	-0⅝	14.05
Nat. Aus. Bk. 14¼ 94A$	100	99⅝	100⅛	-0⅛	-0¼	14.74
New Zealand 9½ 93 £	100	87¼	87⅝	-0⅛	-0½	14.92
O.E.K.B. 10¼ 99 C$	*150*	*84⅞*	*85⅜*	*-1⅝*	*-2¼*	*13.09*
Royal Bk.Scot.10⅛ 98 £	125	83	83⅜	-0½	-1	14.36
Saskatchewan 10¼ 93 C$	200	90¾	91¼	-0⅜	-0⅞	13.54
State Bk.NSW. 13⅞ 93A$	100	97¾	98¼	0	-0⅛	14.54
Sweden 7½ 93 Ecu	250	91	91½	0	-0⅛	10.53
Sweden 15 94 A$	100	101¾	102⅜	-0⅛	-0¼	14.27
Toyota Mtr.Cr.10⅛ 94C$	150	88⅝	89⅛	-1⅝	-1⅜	13.76
Toyota Mtr.Cr.11⅜ 92C$	150	96⅛	97⅛	-0¼	-0⅝	13.35
World Bank 7⅛ 99 FL	300	88¼	88⅝	0	0	9.02
World Bank 9½ 95 Ecu	100	95½	96	+0⅛	+0⅛	10.67
World Bank 10⅞ 94 £	200	†89¼	89⅝	-0⅛	-0⅜	14.28
World Bank 13⅝ 92 A$	100	98⅛	98⅝	-0⅛	-0½	14.17
World Bank 14¼ 94 A$	75	99⅛	99⅝	-0⅛	-0¼	14.38
Zentrspk. 13¼ 93 A$	75	†98½	99	0	-0¼	13.65

FLOATING RATE NOTES	Spread	Bid	Offer	C.dte	C.cpn
Alliance & Leic.Bld 94 £	.08	99.87	99.92	24/04	15.33
Bank of Greece 99 US	†0¼	98.37	98.62	8/09	8⅝
Belgium 91 US	0	99.91	99.98	21/08	8.32
Chelt.& Gloucester 94 £	.063	99.74	99.79	31/05	15¼
Credit Foncier 98 US	.063	99.56	99.66	20/04	8.31
Dresdner Finance 99 DM	†.031	100.18	100.28	28/04	6.97
EEC 3 92 DM	†0	100.45	100.55	21/08	9
Halifax BS 94 £	.1	100.01	100.06	9/05	15.22
Invt. In Industry 94 £	0⅛	99.92	100.02	17/04	15½
Leeds Perm. B/S. 94 £	0⅛	100.07	100.12	17/04	15.37
Milk Mkt. Brd. 5 93 £	0⅛	99.88	99.93	29/06	15.31
New Zealand 5 97 £	.07	99.95	100.05	22/05	15.06
Northern Rock 92 £	0⅛	99.81	99.86	30/04	15.18
State Bk. Nsw. 98 US	.188	99.45	99.70	14/08	8.56
Woolwich Equit. BS. 93 £	0⅛	100.02	100.07	17/04	15.37
Woolwich 5 95 £	0⅛	99.95	100.01	22/05	15¼

Average price change... On day -0.01 on week -0.01

CONVERTIBLE BONDS	Cnv. date	Cnv price	Bid	Offer	Chg. day	Prem
Alcoa 6¼ 02 US	8/87	62.	109⅛	110⅛	-0¼	5.98
Amer. Brands 5¾ 05 US	4/90	79.	99¾	100⅝	-0⅛	19.54
Asda 4¼ 02 £	3/87	1.64	101½	102½	0	67.28
Bank of Tokyo 3⅜ 04 US	3/89	1772.	66⅜	67⅜	+0⅞	11.68
CBS. Inc. 5 02 US	†4/87	200.	96½	97½	-0⅛	8.99
Dai-Ichi Kan. 3⅞ 04 US	7/89	3486.	72	73	+4	25.83
Daiwa Bank 3¼ 95 US	2/90	1628.	90⅜	91⅜	+3⅛	7.30
Primerica 5½ 02 US	4/87	66.75	72⅜	73⅜	-0¼	62.80
Eng.China Clay 6½ 03 £	9/88	4.8	80⅝	81⅝	-0¼	4.84
Fujitsu 3 99 US	5/84	1106.	184	185	+0⅝	-2.17
Ladbroke Grp. 5¾ 04 £	†6/89	3.55	96½	97½	0	18.33
Land Secs. 6¾ 02 £	6/87	6.72	81⅛	82⅛	-0⅛	11.71
Minolta Camera 2¼ 94DM	†2/86	1004.	94½	95½	-0⅛	16.95
MCA INC 5½ 02 US	9/87	69.62	90⅞	91⅞	-0⅝	19.47
Mitsubishi Bk. 3½ 04US	5/89	3266.	71	72	+1⅛	19.41
Next Plc 5¾ 03 £	11/87	4.3	96⅞	97⅞	-0⅛	473.58
Omnicom Inc. 6 1/2% 04 US	7/89	28.	101⅞	102⅞	-0⅜	23.29
Omron Tateisi 2¾ 02 US	*†4/87	1310.	228½	228½	0	10.44
Ranks Hovis 4¾ 03 £	1/88	3.5	108¾	109¾	-0¾	0.89
Redland 7¼ 02 £	1/87	5.4	100½	101¼	+0⅝	-2.31
Saatchi&Saatchi 6¾ 03 £	†10/89	4.41	66	67	+1	157.25
Sanwa Bank 1¾ 02 US	10/87	2767.	76	78	+5	7.88
Sumitomo Bank 3¼ 04 US	2/89	3897.	65	66	+1	30.09
Texas Inst. 2¾ 02 US	9/87	82.87	75¼	76¼	-0⅛	72.56
Utd.Newspapers 8 04 £	10/89	8.77	133¼	134¼	+0⅛	239.88
W.R. Grace 6½ 02 US	9/87	42.12	84½	85½	-2	30.20

* No information available-previous day's price

† Only one market maker supplied a price

Straight Bonds: The yield is the yield to redemption of the mid-price; the amount issued is in millions of currency units except for Yen bonds where it is in billions. Change on week=Change over price a week earlier.

Floating Rate Notes: Denominated in dollars unless otherwise indicated. Coupon shown is minimum. C.dte=Date next coupon becomes effective. Spread=Margin above six-month offered rate (‡three-month; §above mean rate) for US dollars. C.cpn=The current coupon.

Convertible Bonds: Denominated in dollars unless otherwise indicated. Chg. day=Change on day. Cnv date=First date of conversion into shares. Cnv. price=Nominal amount of bond per share expressed in currency of share at conversion rate fixed at issue. Prem=Percentage premium of the current effective price of acquiring shares via the bond over the most recent price of the shares.

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Our focus is Europe.

On 2 April this year, Daiwa Securities Co. Ltd. became the first ever Japanese company to obtain simultaneous listings on seven major European stock exchanges – London, Amsterdam, Brussels, Frankfurt, Luxembourg, Paris and Zurich.

This level of commitment is also mirrored in the expansion of our European coverage over the past 25 years. With the opening of our new Stockholm office at the end of last year, this now extends to a network of 18 representative offices and group companies operating in 10 countries.

With this breadth of coverage – and depth of commitment – we can take a truly European perspective on your business.

Daiwa Securities Co. Ltd. consolidated total assets as at 31 March 1989: US$39 billion.

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DAIWA

INTERNATIONAL CAPITAL MARKETS

Samsung postpones $75m warrants issue once more

By Andrew Freeman

THERE was slow activity on the Eurobond market yesterday as the climate for new issues remained difficult. Traders said investors were still nervous in the volatile conditions, while yields continued to hamper most borrowing opportunities.

Evidence of the problems faced by the market was provided by the indefinite postponement of a $75m bonds with equity warrants issue for Samsung, the Korean electronics company. The deal had already been postponed once, and a belated launch was planned this week with more favourable terms.

However, the continuing uncertainty of the outlook persuaded Samsung to retreat. Previous such issues for Korean companies have reached huge premiums to their issue prices.

On the primary market, Nomura International was the lead manager of a successful *Y300bn 10-year issue for the* Inter-American Development Bank.

The deal had been in the pipeline for some weeks, but was held back by the unfavourable mood in Tokyo. The apparent decoupling of yen bond markets from the weak US Treasury market this week *was felt to have improved the* tone sufficiently and Nomura *launched the deal to a steady* reception in Japan and Europe, where institutions showed good appetite.

The bonds were priced at 101⅛ with a 7¼ per cent coupon to yield 7.34 per cent at less full fees. This offered limited switching opportunities out of other recent 10-year issues. Nomura was quoting the paper comfortably inside fees at around less 1.60 bid. Issue proceeds were unswapped.

In France, Société Générale brought an international FFr2bn tranche of a 10-year convertible for Compagnie Générale d'Electricité, the power company privatised in June 1987. The wider deal totalled FFr5.6bn.

The paper was priced at *FFr680 per bond, with each* bond convertible into one share after July 1991. Against Wednesday's closing CGE share price, this represented a 7.9 per cent premium.

Traders said the deal met a strong initial reception, with the grey market price rising as high as FFr692 bid before set*tling back around 683 bid, giv*ing a premium of around 10.5 per cent. *There is a subscrip*tion period which includes priority for existing CGE shareholders. The borrower has a call option on 1 July 1992 at 130 per cent.

Bankers Trust came late in the day with an Ecu75m fungible deal for Credit Local, bringing the 10¼ per cent issue maturing in February 1995 up to Ecu300m.

The new bonds were priced at 100.075 per cent, giving a small yield pick-up over the existing issue.

The lead manager was quoting the paper on fees at less 1⅞ bid, but said the deal was launched too late for a trend to be clear.

There was some comment from traders that the implied yield of around 10.73 per cent on the Credit Local bonds had to be seen in the context of the Kingdom of Spain's debut Ecu issue expected early next week, which is likely to offer a yield of around 10.90 per cent. Many *investors indicated they* were waiting for confirmation of the terms on Spain's issue before committing funds to other Ecu deals.

A FM150m three-year deal for Swedish Export Credit was launched by Union Bank of Finland to a calm reception. The bonds offered a 13¼ per *cent coupon, and* were quoted on fees at less 1⅜ bid.

INTERNATIONAL BONDS

NEW INTERNATIONAL BOND ISSUES

Borrower	Amount m.	Coupon %	Price	Maturity	Fees	Book runner
FRENCH FRANCS						
Compagnie Gen.Elec.(a)§◆	2bn	6.5	100	2000	2½/1½	Societe Generale
ECUs						
Credit Local(b)◆	75	10¼	100.075	1995	1⅞/1¼	Bankers Trust Int.
FINNISH MARKKA						
Swedish Export Credit◆	150	13¼	101⅜	1993	1⅜/⅞	UBF
YEN						
IADB◆	30bn	7¼	101⅛	2000	1¼/1¼	Nomura Int.

§Convertible. ◆Final terms. a)Short first coupon. Payment date 22 May 1990. b)Fungible with existing Ecu 225m issue. Payment date 11 May 1990.

SEC ends registration for private placings

By Janet Bush in New York

THE SECURITIES and Exchange Commission yesterday unanimously approved a rule which will exempt billions of dollars of privately-placed shares and bonds from its registration requirements. It believes this will create a larger, more liquid market, with more foreign participation.

Rule 144a, which has been hotly debated for two years, will allow US and foreign issuers to offer securities to large institutions without registering with the SEC, which regulates US securities markets.

Through this rule, the SEC is effectively helping to develop a strictly institutional securities market, relatively free of regulation, in which large professional investors will be able to trade debt and equity.

It is believed that many more overseas companies, which have been put off issuing securities on Wall Street because of onerous registration requirements, will now choose to offer debt and equity in the US.

The final version of the rule, as expected, is much narrower than the SEC's original proposal. *It will limit the exemp*tion from registration to institutions with at least $100m invested in securities.

Another key provision is that Rule 144a will not apply to securities listed on US stock exchanges or on the Nasdaq over-the-counter electronic share trading system.

In its earlier form, the rule had only required institutions to have assets of $100m to be eligible for exemption from registration. It narrowed the field in response to concern on Wall Street that the smaller investor would be hurt as a new, expanded private placement market siphoned liquidity from the public markets.

The SEC also approved Regulation S, which clarifies registration requirements for offers and sales of securities offshore. It also voted to allow the National Association of Securities Dealers to launch Portal, an automated trading system for privately placed securities.

Money laundering under siege

David Lascelles on an international initiative to drive out drug cash

About 40 proposals for curbing money laundering by drug dealers are contained in the report released yesterday by the world's leading industrialised countries. The proposals include limitations on bank secrecy, closer international co-operation and better monitoring of movements of cash.

The report is the result of a nine-month investigation by a task force of finance ministries, central banks and enforcement agencies. Initiated by the Group of Seven countries at their Paris summit last summer, it was later expanded to a total of 15 countries and four international agencies.

Mr John Major, the UK Chancellor, said in presenting the report yesterday that money laundering "is an international problem which cannot be tackled by individual countries in isolation. The commitment by the major industrialised countries to strengthen international co-operation in the fight against money laundering is therefore all the more welcome."

The report urges "rapid and tough actions," and its recommendations cover three broad areas.

First, banks and other types of depository institutions such as savings banks and building societies must improve their monitoring of money transactions. The report says this can best be done with a "suspicion-based" system by which banks are required to report cash movements which they suspect might be drug-related.

The report comes down against widening the US practice (also supported by Australia) of mandatory reporting of all cash movements above a certain amount, in the US case $10,000. This was thought to be too cumbersome, though the report says countries should keep the possibility of mandatory reporting under review.

Second, banks must take better steps to identify their customers. The report admits that this is not easy, because drug dealers can conceal their identities behind nominees. But there is scope for closer scrutiny of unfamiliar clients.

Third, the report urges wider ratification of the 1988 Vienna Convention against drug trafficking, which commits signatory countries to make money laundering criminal, and opens channels for mutual legal assistance. Although 80 countries have signed the convention only four have so far ratified it: China, the Bahamas, Nigeria and Senegal. It has to be ratified by 20 countries before it has any force.

Value of retail drug sales ($bn)

	US	Europe
Cocaine	28.8	6.71
Heroin	10	2.13
Cannabis	67.2	7.52
Total	106	16.36

Source: Report of financial action task force on money laundering

One key aim of the Convention is to lift the confidentiality constraint from banks in cases of suspected drug money laundering, thus providing the basis for monitoring and reporting.

The report tries to estimate the size of the drug money problem, although it admits that reliable statistics are hard to come by.

Using data supplied by the International Monetary Fund, the Organisation of Economic Co-operation and Development and the Bank for International Settlements (BIS), it says that the retail proceeds of dealing in the three main drugs – cocaine, *heroin and marijuana* (cannabis) – amount to $122bn a year. Of this $85bn is available to be laundered through the banking system. This estimate is based on the rule of thumb that only 10 per cent of the problem is positively identified.

Because of the huge sums involved, the report says that drug sales often give rise to a greater physical volume of cash than that of the drugs for which it is exchanged. Therefore the proceeds from drugs should be more detectable than the drugs themselves.

The process of laundering goes through several stages. The first is "placement," or the physical disposal of bulk cash proceeds from obvious places of sale.

Then there is "layering," which is the conversion of drug money into other forms, for example by exchanging it into a different currency, to separate proceeds from their source. Finally there is "integration," when the money becomes part of the banking system by being deposited.

To be effective, enforcement must catch the money at an early stage, when the trafficker is most vulnerable.

The report gives some idea of the legislative task ahead. Money *laundering* is only a criminal offence in seven of the task force countries, though four more have legislation pending. There is also only a limited basis for international co-operation, as existing treaties do not allow all task force countries to obtain freezing or confiscation orders in another.

Anonymous bank accounts are not allowed in any of the countries, although Austria permits anonymous bearer accounts. Not all countries require the identification of beneficial owners of accounts.

Regarding the UK, officials say that many of the main provisions have already been introduced. The 1986 Drug Trafficking Offences Act requires banks to report suspicious money movements to the National Drug Intelligence Unit. Reports rose from 450 in *1988 to 1,200 last year, and* 600 in the first three months of this year. The new Criminal Justice (International Co-operation Act), currently being implemented, will also give customs officers the power to seize cash at the border if they suspect that it is the proceeds of trafficking.

The Bank of England is supervising the introduction of tighter controls, and has threatened to cancel the licences of banks that do not co-operate. It recently helped set up a committee of banks and building societies to help them develop anti-laundering procedures.

There are no formal provisions for the task force to remain in existence now that its report is complete. However, it may be reconvened to review progress. There is no formal obligation on countries to implement its recommendations, but the *hope is that moral* persuasion and peer group pressure will have the desired effect.

The members of the task force are the US, the UK, France, Germany, Italy, Japan, Canada, Sweden, the Netherlands, Belgium, Luxembourg, Switzerland, Austria, Spain and Australia. The European Commission, *the IMF, the BIS* and the OECD are also represented.

Hungary tourism company to be sold off

IBUSZ, the Hungarian state tourism company, will be floated simultaneously on the Vienna and Budapest stock exchanges after June 21, when the new Budapest exchange is due to open, writes Nicholas Denton in Budapest.

In Vienna, $10m worth of the shares will be issued, compared with only $1m to $2m in Budapest. Including shares to be sold under an employee share-ownership scheme, about 40 per cent of the company will be publicly available.

The public offering of Ibusz is Hungary's first real privatisation, so the authorities are determined to make the issue a success. Ibusz was chosen because the enterprise is profitable, earns hard currency and stands to gain from the expansion of tourism in Hungary.

Malev, the Hungarian state airline, is also moving towards privatisation. The size of the issue is expected to make a foreign tranche necessary.

Matif buys 28% of Swedish futures venture

MATIF, the French futures exchange, *announced yesterday that it would take a* 28 per cent stake in OMF, a futures venture set up in Paris by the Swedish electronic options exchange, OM, writes Deborah Hargreaves. The move also injects FFr50m in new capital into the screen-based system.

As part of the deal, Matif has paid OM FFr20m for OM's 20 per cent stake in OMF, and the Swedish company has agreed to co-operate with the French futures exchange on technology development.

The agreement marks the end of OM's involvement in the French futures market, after the firm made a bid to establish a venture there in competition with the Matif. A group of French banks supported the venture to pressure the Matif into developing a stock index futures contract.

Once the Matif had listed a futures contract based on the CAC-40 index, the banks withdrew their support. "Unfortunately the French banks were more *interested in* playing politics than in getting the market *to work," said Mr Olof Stenhammar,* OM's founder and president.

The only contract that continued to trade on OMF, the BTAN bond futures contract, trades little more than 100-200 lots a day. The Matif will now try to resurrect the contract and increase its liquidity.

OMF also gives the Matif a screen-based system on which it could trade some of its less liquid contracts leaving room on its trading *floor for its busy products.*

LONDON MARKET STATISTICS

FT-ACTUARIES SHARE INDICES

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EQUITY GROUPS & SUB-SECTIONS. Figures in parentheses show number of stocks per section. Thursday April 19 1990.

	Equity groups & sub-sections	Index No.	Day's Change %	Est. Earnings Yield% (Max.)	Gross Div. Yield% (Act at 25%)	Est. P/E Ratio (Net)	xd adj. 1990 to date	Wed Apr 18 Index No.	Tue Apr 17 Index No.	Thu Apr 12 Index No.	Year ago (approx) Index No.
1	CAPITAL GOODS (200)	837.73	-0.9	14.10	5.39	8.62	10.96	844.98	844.45	845.08	922.82
2	Building Materials (27)	1019.23	-1.1	15.65	5.73	7.94	5.50	1030.82	1023.41	1025.33	1157.56
3	Contracting, Construction (37)	1352.25	-0.6	18.56	6.10	7.04	16.02	1360.71	1355.54	1354.67	1671.02
4	Electricals (10)	2372.66	-1.3	12.36	5.65	10.00	39.14	2402.84	2384.61	2377.51	2700.77
5	Electronics (29)	1760.67	-0.5	10.24	4.21	12.66	17.31	1769.93	1775.30	1781.34	2067.01
6	Engineering-Aerospace (8)	435.62	-1.1	15.45	5.33	7.97	7.69	440.25	438.72	441.14	[illegible]
7	Engineering-General (43)	460.63	-0.7	12.25	5.42	9.85	7.42	463.92	465.40	464.61	[illegible]
8	Metals and Metal Forming (6)	475.36	-1.2	24.75	6.56	4.56	0.53	481.16	482.09	481.56	532.62
9	Motors (16)	344.15	-0.4	16.12	6.55	7.24	8.43	345.45	345.15	344.98	306.99
10	Other Industrial Materials (24)	1543.04	-1.0	12.00	5.16	9.65	28.02	1557.99	1561.76	1561.33	1556.93
21	CONSUMER GROUP (177)	1190.35	-0.9	10.01	4.12	12.45	9.21	1201.18	1204.55	1208.47	1179.36
22	Brewers and Distillers (21)	1349.55	+0.3	10.36	3.94	11.91	12.53	1345.32	1394.16	1402.22	1289.77
25	Food Manufacturing (20)	1044.98	-0.8	10.65	4.50	11.64	14.80	1052.99	1054.49	1052.10	1025.65
26	Food Retailing (16)	2220.38	-1.0	9.55	3.53	13.51	7.94	2241.68	2236.56	2246.09	2079.08
27	Health and Household (13)	2473.15	-1.5	7.28	2.80	16.38	17.07	2511.21	2537.93	2547.67	2273.72
29	Leisure (31)	1323.72	-1.1	10.72	4.50	11.49	9.24	1338.76	1353.53	1358.13	1580.15
31	Packaging & Paper (13)	557.93	-1.4	13.05	5.82	9.63	10.38	565.65	566.03	565.72	562.57
32	Publishing & Printing (16)	3155.01	-1.6	10.67	5.69	11.85	37.24	3205.96	3199.31	3209.12	3491.39
34	Stores (35)	724.56	-0.9	12.09	5.06	10.66	1.89	731.20	728.09	731.26	764.62
35	Textiles (12)	468.52	-1.5	14.26	7.60	8.83	0.59	475.89	482.28	483.93	520.27
40	OTHER GROUPS (105)	1105.29	-1.0	11.30	5.18	10.59	8.58	1116.76	1118.21	1120.28	1052.38
41	Agencies (17)	1606.21	-0.9	5.65	2.45	21.77	2.63	1620.26	1622.15	1618.45	1254.31
42	Chemicals (23)	1168.47	-1.0	12.21	5.64	9.57	22.59	1180.52	1183.60	1187.93	1196.21
43	Conglomerates (14)	1549.81	-1.6	10.44	6.31	11.35	8.69	1574.79	1530.60	1581.41	1516.19
44	Transport (13)	2153.77	-0.6	11.30	4.64	11.24	25.71	2166.08	2162.18	2165.26	2368.44
46	Telephone Networks (2)	1088.66	-1.7	11.66	4.71	11.15	0.00	1107.04	1108.60	1109.41	1089.00
47	Water (10)	1857.56	+0.3	18.76	7.29	5.90	0.00	1852.17	1853.63	1857.89	[illegible]
48	Miscellaneous (26)	1757.53	-0.4	10.74	4.88	10.43	18.48	1764.33	1763.84	1778.76	1438.55
49	INDUSTRIAL GROUP (482)	1089.28	-0.9	11.43	4.77	10.68	9.88	1099.52	1101.15	1103.56	1096.83
51	Oil & Gas (18)	2225.89	-0.9	11.16	5.42	11.82	35.53	2246.36	2221.77	2245.14	1995.74
59	500 SHARE INDEX (500)	1184.02	-0.9	11.39	4.86	10.83	11.91	1195.11	1197.04	1198.79	1172.93
61	FINANCIAL GROUP (110)	776.30	-0.8	-	5.86	-	17.48	782.81	791.71	799.92	727.37
62	Banks (9)	820.73	-1.3	20.02	6.51	6.54	24.14	831.75	852.08	866.26	709.81
65	Insurance (Life) (7)	1268.76	+0.1	-	5.79	-	34.46	1267.70	1267.56	1274.64	1046.61
66	Insurance (Composite) (7)	639.59	-0.5	-	6.46	-	19.43	642.95	648.23	653.66	576.57
67	Insurance (Brokers) (7)	1049.00	+0.3	8.18	6.21	16.12	26.30	1045.89	1041.77	1042.32	931.83
68	Merchant Banks (7)	444.76	-0.7	-	4.28	-	4.85	448.01	452.73	452.50	334.07
69	Property (48)	1129.43	-0.9	8.21	3.94	15.44	5.62	1139.72	1140.18	1149.00	1307.68
70	Other Financial (25)	308.27	-0.7	14.25	7.23	9.28	4.09	310.38	311.02	312.60	367.07
71	Investment Trusts (67)	1140.79	-0.3	-	3.32	-	8.95	1144.79	1140.53	1141.86	1098.30
91	Overseas Traders (5)	1312.31	-1.0	10.07	6.96	11.98	42.87	1324.97	1319.49	1325.80	1376.89
99	ALL-SHARE INDEX (682)	1085.20	-0.9	-	4.97	-	13.04	1095.00	1098.14	1101.24	1064.62

	Index No.	Day's Change	Day's High (a)	Day's Low (b)	Apr 18	Apr 17	Apr 12	Apr 11	Apr 10	Year ago
FT-SE 100 SHARE INDEX◆	2184.7	-21.2	2194.9	2180.5	2205.9	2214.5	2222.1	2215.5	2217.5	2064.4

◆Opening index 2192.8; 9 am 2192.1; 10 am 2194.0; 11 am 2188.0; Noon 2187.3; 1 pm 2188.0; 2 pm 2181.4; 3 pm 2184.1; 4 pm 2187.1; 4.10 pm 2185.7; (a) 9.54am (b) 2.33pm † Flat yield. Highs and lows record, base dates, values and constituent changes are published in Saturday issues. A list of constituents is available from the Publishers, The Financial Times, Number One, Southwark Bridge, London SE1 9HL, price 15p, by post 35p

FIXED INTEREST

	PRICE INDICES	Thu Apr 19	Day's change %	Wed Apr 18	xd adj. today	xd adj. 1990 to date
	British Government					
1	Up to 5 years	112.36	-0.05	112.42	-	4.19
2	5-15 years	114.69	-0.16	114.87	-	4.96
3	Over 15 years	118.06	-0.08	118.15	-	4.16
4	Irredeemables	136.76	+0.24	136.44	-	1.51
5	All stocks	115.96	-0.11	116.09	-	4.61
	Index-Linked					
6	Up to 5 years	141.05	-0.07	141.15	-	1.49
7	Over 5 years	131.84	-0.33	132.28	-	1.38
8	All stocks	132.42	-0.31	132.84	-	1.38
9	Debentures & Loans	95.72	+0.04	95.67	-	3.12
10	Preference	75.14	-0.36	75.41	-	2.07

	AVERAGE GROSS REDEMPTION YIELDS		Thu Apr 19	Wed Apr 18	Year ago (approx.)
	British Government				
1	Low Coupons	5 years	11.95	11.93	9.91
2		15 years	11.60	11.58	9.32
3		25 years	11.49	11.49	9.06
4	Medium Coupons	5 years	13.20	13.15	10.95
5		15 years	12.08	12.07	9.81
6		25 years	11.64	11.65	9.32
7	High Coupons	5 years	13.31	13.26	11.06
8		15 years	12.39	12.37	10.02
9		25 years	11.91	11.91	9.48
10	Irredeemables		11.49	11.52	9.02
	Index-Linked				
11	Inflation rate 5%	Up to 5 yrs.	4.85	4.81	3.78
12	Inflation rate 5%	Over 5 yrs.	4.23	4.21	3.62
13	Inflation rate 10%	Up to 5 yrs.	3.79	3.75	2.80
14	Inflation rate 10%	Over 5 yrs.	4.04	4.02	3.44
15	Debs & Loans	5 years	16.22	16.25	11.82
16		15 years	14.00	14.03	11.32
17		25 years	13.37	13.38	11.32
18	Preference		12.31	12.26	10.22

RISES AND FALLS YESTERDAY

	Rises	Falls	Same
British Funds	5	73	20
Corporations, Dominion and Foreign Bonds	1	10	16
Industrials	143	584	863
Financial and Properties	65	256	405
Oils	14	40	36
Plantations	1	2	7
Mines	31	38	89
Others	20	115	118
Totals	280	1,118	1,554

LONDON RECENT ISSUES

EQUITIES

FIXED INTEREST STOCKS

RIGHTS OFFERS

Dividend and yield based on prospectus or other official estimates for 1989/90. Q Gross. R Forecast annualised dividend, cover and p/e ratio based on prospectus or other official estimates. W Pro Forma figures. ♥ Issued by tender. ‡ Offered to holders of ordinary shares as a "rights". † Introduction. § Placing price. †† Reintroduction. ‡ Unlisted securities market. * Third Market.

TRADITIONAL OPTIONS

- First Dealings April 17
- Last Dealings May 4
- Last Declarations July 19
- For settlement July 30

For rate indications see end of London Share Service

Calls in Amstrad, Aviva Pet., Brent Walker, Butte Mining, Coloroll, Gaelic Res., Globe Inv. Trust, *Isopad Intl., Ivernia West,* Lloyds Bank, Next, J. Rothschild and Tuskar Res. Puts and calls in Dewey Warren and Tuskar Res.

LONDON TRADED OPTIONS

BRISK trade in FT-SE 100 index options dominated dealing in the *London derivative markets, as* investors reacted to the fall in UK equities.

Shares began on the defensive with the futures market establishing an opening premium over the cash market of 12 points, unchanged from the previous session.

A brief rally on limited buying of FT-SE futures pared the stock *market's losses, as buyers of* FT-SE April 2,250 put options hedged themselves by buying futures, and the premium advanced to 17.

But by late morning prices had started to turn lower again as the options-related business dried up.

A decline by US Treasury bonds prompted selling and the pre*mium narrowed once again to 13* points, which pulled the cash index down to the day's low.

Strong buyers of April 2,150 calls during the afternoon then sparked buying of futures, which in turn pushed the cash market off those lows. Some dealers also noted that talk of Japanese put selling had also helped inject confidence into the market.

The June FT-SE futures closed at 2,206.0, a 21 point premium to the cash index. Total futures turnover, at 6,235, was more than double the previous session's level.

FT-SE option turnover stood at 16,022, which was divided up between 8,187 calls and 7,835 puts. The April 2,150 call series was the busiest, *trading* 4,600 contracts.

Hanson was the busiest stock option, trading 1,860, of which 1,089 were calls and 771 were puts. The May 240 call series, at 309 contracts, was the most active. Dealers noted brisk two-way trade. GEC also featured on buying of the November 200 calls.

British & Commonwealth options will re-open for trading this morning at 8.35am, the London Traded Options Market said. But as long as the ordinary B&S shares are suspended, options trading will be only allowed for closing business only, it added.

UK COMPANY NEWS

Lep makes £26m and set for eastern bloc growth

By Andrew Hill

John Read: earnings growth reflects performance

LEP GROUP, the services combine with extensive distribution and freight forwarding operations in West Germany, is poised to expand into eastern Europe.

This news was given with the preliminary statement issued yesterday, showing a 44 per cent rise in 1989 pre-tax profits to £26.5m (£18.5m).

Mr John Read, chairman, said: "We have always done a substantial amount of business with the eastern bloc and the political changes that have taken place over the last few months have thrown up new opportunities in our field."

The 1989 profits benefited from a full year contribution from National Guardian Corporation, the US security business which became a wholly-owned subsidiary in September 1988. NGC is one of the five largest security groups in the US.

The NGC acquisition altered the balance of the group's activities, with more than half of operating profits coming from security services, up from £6.67m to £25m. Distribution profits increased to £15.2m (£8.94m) and property and other activities made £3.61m (£10.8m). Group turnover rose from £1.1bn to £1.39bn.

Mr Read said earnings per share growth of 34 per cent – from 11.5p to 15.4p – provided the best reflection of the group's performance. The final dividend is 4.25p, making 6p (4.75p) for the year.

Interest charges rose sharply from £9.66m to £17.3m, although borrowings as a proportion of shareholders' funds came down from 120 per cent to 106 per cent. Mr Read said the group was untroubled by the high gearing because asset backing from the property portfolio was estimated at 150p per share, compared with yesterday's share price of 148p, down 4p.

● **COMMENT**

Lep's 1989 profits were actually slightly below most market expectations, but analysts are still reasonably content about the long-term prospects. They foresee further benefits as management polishes existing activities and exploits the east European market. In spite of economic fears, the low-margin freight forwarding and distribution business continues to record the high volumes necessary to maintain growth. The profits breakdown this time should not be taken as a firm indication of the future balance of the business – the divisions are at different stages of development, points out Mr Read – but National Guardian's strong reputation and contribution should continue to underpin the distribution profits. Recently, the shares have bounced back from a low of 126p in October: assuming the group makes more than £34m before tax this year they should be worth holding on a prospective p/e of about 8.

Group's bankers confirm support as shares sustain 22% fall

Rockfort profit crashes by £5.7m

By John Thornhill

ROCKFORT GROUP, the Reading-based property developer headed by Mr Roger Smee, yesterday revealed a sharp fall in pre-tax profits for 1989 which led to a 22 per cent drop in the value of its shares.

The company thought it appropriate to confirm it had the continuing support of its bankers.

Turnover rose to £62.35m (£44.84m) but pre-tax profits slumped to £3.11m (£8.84m). Resultant earnings per share dropped to 4.6p (16.2p), and the dividend is cut to 1.9p (2.6p) with a final of 0.5p. The shares closed 7p lower at 25p, compared with a flotation price of 140p in the summer of 1988.

These results added more proof, if any was needed, of the distressed state of the property sector, and the company held out few hopes that the sector was likely to see much of a recovery in 1990. It was reducing its financial exposure to speculative property development accordingly.

Indeed, the results would have been even worse had it not been for a change in accounting policy. The interest costs on commercial development properties, which were previously taken through the profit and loss account, have been capitalised in the latest set of results.

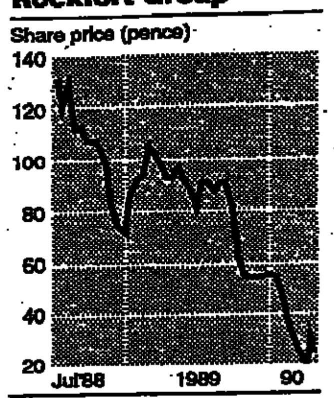
Under the previous accounting system, pre-tax profits would have been £1.85m and earnings per share 2.7p.

Mr Smee said two related changes in the trading environment had led to a reduction in profitability.

First, Mr Smee said the "virtual disappearance" of institutional investors, especially in the second half of the year, had made it difficult to fund commercial projects.

Second, he claimed the high interest rate environment had hit margins at Rockfort Homes and depressed demand for the company's office and retail developments.

Rockfort Group



The total number of units sold by Rockfort Homes during the period was 313 compared with 158 in 1988. Its contribution to the group's profits was reduced from £1.77m to £1.64m but that was thought to be a considerable achievement in the circumstances.

Margins had been squeezed but there was a satisfactory level of sales and a positive cash flow. By the year end the land bank stood at 269 units. Rockfort had not acquired any new development land since August 1988 but had several options.

Mr Smee said the company was, however, involved in three major projects which should provide a solid base for development into the 1990s.

The projects are: a town centre shopping scheme in Newport, Gwent; a riverside development in Chelmsford; and a joint £250m shopping and leisure centre in Reading.

Interest payments for 1989 rose to £3.55m (£967,000). At the year end balance sheet borrowings stood at £26.5m (£11.7m) and gearing levels rose from 41 per cent to 89 per cent.

Higher interest costs hit IBC

By Jane Fuller

INTERNATIONAL Business Communications, which publishes business information and organises conferences, saw pre-tax profits fall by 32 per cent in 1989 after a fivefold increase in interest costs.

The group's debt shot up in February last year after it spent about £40m buying back 40 per cent of its shares. While pre-tax profit fell from £13.33m to £9.01m, earnings per share went up to 16.5p (13.4p).

Turnover, partly swelled by acquisitions, advanced 42 per cent to £94.27m. Operating profit was 12 per cent ahead at £16.58m.

Mr Michael Bell, chairman, said the margin had been reduced because the publishing activities that had been added had lower margins than the 50 per cent level enjoyed by the Fleet Street Letter tip-sheet business during the bull market. After three good years, tip-sheet was expected to fall back this year.

Nearly half of the operating profit was soaked up by £7.57m (£1.43m) in interest costs. Mr Bell said debt had come down from £71.5m to £67.5m. The company had made the scheduled £10m repayment on the syndicated loan associated with the shares buy-back. But its overdraft had risen.

The schedule involves a further repayment of £10m this year.

Business information accounted for 57 per cent of turnover and 61 per cent of operating profit, proportions that were set to rise this year partly because of disposals of non-publishing businesses.

Mr Bell also said that about two thirds of business information profits arose outside the UK, serving professional markets in the US, the Netherlands, Italy and Australia.

In the UK, however, trading difficulties had had an effect on parts of the conference business as well as in the tip-sheet operation. Business publishing had not been affected.

IBC also announced yesterday the sale of three subsidiaries for a total of £1.8m. Swinton Electro-Plating and ASM Accessories have been sold to Mr Don Smith, their managing director; Mallerman Summerfield, an advertising agency, has gone to McCann Erickson.

A final dividend of 3p makes a total of 4.5p (4.1p).

The share price closed 1p down yesterday at 69p.

● **COMMENT**

The jury is still out on whether the audacious buy-back of shares, at 150p – then 7p above the market price, will pay off. So far the results – apart from the earnings per share growth – have been inauspicious. Apart from the heavy burden of interest costs, the more difficult conditions have meant that disposals of non-core businesses have taken longer and raised less than might have been hoped, aggravating the overdraft. While no one doubts the strength of business publishing and the overseas earnings, the question is how vulnerable are the UK conferencing, financial advice and marketing activities? The forecast pre-tax profit is £8m, giving a prospective multiple of little more than four. It looks cheap, but so much depends on the outlook for interest rates.

Brown & Jackson issue flops

By Maggie Urry

ONLY 9.4 per cent of an issue of new shares from Brown & Jackson, the discount retail group, has been taken up by its existing shareholders.

A simultaneous issue of convertible preference shares was taken up by 10.9 per cent of existing holders.

However, Mr Bryan Duffy, chairman, said he was not disappointed with the result of the issue which took the form of a conditional placing with an open offer to existing shareholders. Mr Duffy said that the group "would not anticipate issuing any more new shares in the coming year."

He said that institutional shareholders had taken up the new shares through their sub-underwriting commitments rather than by claiming their shares under the *clawback* procedure.

Lowndes Queensway, the loss-making furniture and carpet retailer, which held a 20 per cent stake in Brown & Jackson, did not take up its entitlement.

The existing shares closed yesterday at 52p, unchanged on the day, and 6p below the 58p placing price. The new shares ended their first day's trading at 50½p.

The two issues raised £31.4m which will be used to repay debt and to expand the Poundstretcher chain which Brown & Jackson bought from Lowndes in March last year.

Frost tops £5m after 42% advance

FROST GROUP, the petrol retailer and sales promotion company, continued its growth in 1989 with taxable profits rising 42 per cent from £3.53m to £5.02m.

The company anticipates another record year in 1990 and plans to change its name.

During the year R Raphael & Sons, the banking services arm, increased profits to £409,000 (£351,000).

Mr Robert Frost, chairman, said that the activity was unrelated to petrol retailing and that it was intended to demerge the company onto the Unlisted Securities Market.

In the last few days an interesting offer has been received which the directors were considering, said Mr Frost. As a result the demerger details would be held back until the position clarifies.

During the year the company's sites increased from 56 to 68. Since the year-end this had risen to 100 following further purchases.

However, for the future Mr Frost said that following the Monopolies and Mergers Commission conclusion that there was no need for change in the oil companies retail activities, prices for sites would increase.

It could not afford to pay the yardstick price of £1 per gallon of annual throughput mentioned in the MMC report but by "acquiring, planning and developing ourselves" he said, the company could buy at lower than that level.

When the move was complete shareholders will be asked to agree a change of name, probably to Save Petrol Retailers.

Turnover for the period increased 33 per cent to £75.8m (£56.62m). Earnings per share came out at 25.2p (18.03p) and the total dividend is raised to 13p (9.25p) with a proposed final of 7.75p.

Drayton Cons Trust

Net asset value of Drayton Consolidated Trust fell to 632.75p at end-March 1990, against 654.625p a year earlier and 700p at September 30.

Net revenue for the six months to March 31 was £2.4m (£2.09m) for earnings of 6.91p (6p). An interim dividend of 4.25p (3.75p) is declared.

UK accounts for 30% of global merger activity

By David Waller

GLOBAL MERGERS and acquisitions activity tumbled by one third during the first quarter of 1990 compared to the last quarter of 1989, according to statistic compiled by KPMG Peat Marwick McLintock, the accountancy firm.

But although the total value of deals has fallen from $40bn to $25bn (£15.2bn) over the period, the UK has continued to be extremely active, accounting for 20 per cent of the global acquisitions by value and 30 per cent by number, against 21 and 27 per cent respectively during the last quarter of 1989.

The UK made 148 acquisitions in the period worth $5.2bn, against 63 cross-border disposals.

The average value of the deals conducted during the period fell by 37 per cent, although the value of deals in the market for medium-sized companies – those under $100m – fell by an average of only 22 per cent.

Peat Marwick blames the decline on two factors: the collapse of the US junk bond market, which has made it difficult for US companies to finance cross-border transactions, and high interest rates.

Copies of Deal Watch are available from Mergers and Acquisitions Services, KPMG Peat Marwick McLintock, 1 Puddle Dock, London EC4.

[illegible] | [illegible] | Free State Consolidated Gold Mines Limited | Orange Free State Investments Limited | The South African Land & Exploration Company Limited | Vaal Reefs Exploration and Mining Company Limited | Welkom Gold Holdings Limited | Western Deep Levels Limited

Abridged quarterly reports and preliminary profit announcements – Dividend declarations

Abridged reports for the quarter ended March 31 1990

Vaal Reefs

Issued Capital in shares of 50 cents each: 19 000 000 ordinary and 100 694 (previously 59 734) S ordinary shares

	Quarter ended Mar. 1990	Quarter ended Dec. 1989	Year ended Dec. 1989 (Audited)
Gold			
Area mined – m^2 000	497	536	2 090
Tons milled 000	2 684	2 778	10 920
Yield – g/t	6.64	6.86	6.91
Production – kg	17 818	19 067	75 455
Cost – R/ton milled	159.05	140.13	138.50
– R/kg produced	23 959	20 416	20 044
Price received on gold sales–R/kg	33 610	32 475	32 055
Uranium oxide			
Tons treated 000	2 275	2 331	9 195
Yield – kg/t	0.19	0.20	0.19
Production – kg	429 938	463 172	1 784 768
	R million	R million	R million
Turnover	616.8	664.3	2 577.5
Profit before taxation	146.0	217.3	821.4
Provision for taxation	25.3	43.2	217.9
Profit after taxation	120.7	174.1	603.5
Appropriation for capital expenditure	59.9	97.2	307.2
Profit available	60.8	76.9	296.3
Dividends – including a final dividend of 800 cents per share			305.3
Decrease in retained profit			9.0
Earnings per share – cents	318	403	1 554
Capital expenditure – R million	76.5	97.9	321.6

Notes:
1. Production was adversely affected by a number of seismic events particularly in the South Lease area, and sporadic incidents of labour unrest.
2. The previous quarter's results include a half-yearly dividend from Southvaal Holdings Limited and are therefore not directly comparable with this quarter.
3. Orders placed and outstanding on capital contracts as at March 31 1990 totalled R147.1 million.

Elandsrand

Issued Capital in shares of 20 cents each: 96 619 825 ordinary and 330 471 (previously 209 661) S ordinary shares

	Quarter ended Mar. 1990	Quarter ended Dec. 1989	Year ended Dec. 1989 (Audited)
Area mined – m^2 000	102	93	359
Tons milled 000	497	548	1 944
Yield – g/t	6.27	6.76	6.67
Production – kg	3 116	3 707	12 971
Cost – R/ton milled	143.00	131.90	132.54
Cost – R/kg Produced	22 808	19 499	19 864
Price received on gold sales – R/kg	33 495	32 583	32 154
	R000	R000	R000
Turnover	102 853	124 414	420 329
Profit before taxation	32 095	52 104	165 756
Provision for taxation	253	266	2 804
Profit after taxation	31 842	51 838	162 952
Appropriation for capital expenditure	16 691	24 640	85 554
Profit available	15 151	27 198	77 398
Dividends – including a final dividend of 40 cents per share			77 500
Decrease in retained profit			102
Earnings per share – cents			
– before appropriation for capital expenditure	33	53	168
– after appropriation for capital expenditure	16	28	80
Capital expenditure – R000	25 492	32 019	115 946

Notes:
1. Gold production was adversely affected by planned mill modifications and an anitcipated decline in grade from the main shaft. Excess ore hoisted during the quarter was stockpiled on surface. The mill modifications were completed during the quarter and the grade has returned to normal levels.
2. Orders placed and outstanding on capital contracts as at March 31 1990 totalled R24 336 000.

Western Deep Levels

Issued Capital in shares of R2 each: 27 194 115 ordinary and 277 757 (previously 217 082) S ordinary shares

	Quarter ended Mar. 1990	Quarter ended Dec. 1989	Year ended Dec. 1989 (Audited)
Area mined – m^2 000	215	225	917
Tons milled 000	1 638	1 689	6 584
Yield – g/t	5.69	5.78	6.16
Production – kg	9 318	9 757	40 569
Cost – R/ton milled	135.28	129.88	124.82
– R/kg produced	23 781	22 483	20 257
Price received on gold sales – R/kg	33 676	32 480	32 077
	R million	R million	R million
Turnover	312.7	322.0	1 307.8
Profit before taxation	97.4	107.3	510.5
Provision for taxation	16.2	(10.6)	89.2
Profit after taxation	81.2	117.9	421.3
Appropriation for capital expenditure	58.0	95.9	290.0
Profit available	23.2	22.0	131.3
Dividends – including a final dividend of 220 cents per share			131.6
Decrease in retained profit			0.3
Earnings per share – cents	85	80	479
Capital expenditure – R million	58.0	96.8	295.4

Note:
1. Gold production continued to be adversely affected by the fire which was reported last quarter. It is evident that the fire has now been smothered and mining faces are currently being re-established. Full production from the area is likely to be achieved during the third quarter of this year.
2. Orders placed and outstanding on capital contracts as at March 31 1990 totalled R53.1 million.

S.A. Land

Issued Capital in shares of 35 cents each: 9 182 700 ordinary and 131 005 (previously 69 495) S ordinary shares

	Quarter ended Mar. 1990	Quarter ended Dec. 1989	Year ended Dec. 1989 (Audited)
Tons milled 000	597	665	2 656
Yield – g/t	0.62	0.54	0.54
Production – kg	372	357	1 427
Production, transport and screening costs – R/ton Milled	16.49	14.44	13 09
– R/kg produced	26 468	26 894	24 365
Price received on gold sales – R/kg	33 664	32 726	32 105
	R000	R000	R000
Turnover	12 476	11 770	46 001
Profit before taxation	1 394	1 227	6 571
Provision for taxation	491	205	2 391
Profit after taxation	903	1 022	4 180
Appropriation for capital expenditure	(243)	–	(34)
Profit available	1 146	1 022	4 214
Dividends – including a final dividend of 20 cents per share			4 172
Increase in retained profit			42
Earnings per share – cents	12	11	46
Capital expenditure – R000	9	7	106

Notes:
There were no orders placed or outstanding on capital contracts as at March 31 1990.

Ergo

Issued Capital in shares of 50 cents each: 42 078 712 ordinary and 3 491 527 (previously 3 440 944) S ordinary shares

	Quarter ended Mar. 1990	Quarter ended Dec. 1989	Year ended Mar. 1990
Material treated – tons 000	9 463	9 556	37 092
Gold production – kg	3 010	2 957	11 732
Uranium production – kg	26 025	39 680	149 736
Acid production – tons	130 643	129 531	491 453
Price received on gold sales – R/kg	33 818	32 396	32 482
	R000	R000	R000
Turnover	113 642	106 856	430 728
Profit before taxation	29 825	22 276	101 606
Ergo division	20 336	13 207	67 441
Daggafontein division	7 911	7 223	29 406
Simmergo division	1 578	1 846	4 759
Provision for taxation	4 942	3 439	17 877
Profit after taxation	24 883	18 837	83 729
Appropriation for capital expenditure	9 527	8 257	35 662
Profit available	15 356	10 580	48 067
Dividends – including a final dividend of 55 cents per share			47 824
Increase in retained profit			243
Earnings per share – cents	33	23	105
Capital expenditure – R000	9 770	7 688	34 414

Note:
Orders placed and outstanding on capital contracts as at March 31 1990 totalled R5 746 000.

Freegold

Issued Capital in shares of 50 cents each: 116 179 121 ordinary and 1 431 787 (previously 890 871) S ordinary shares

The following are the results of the company and its wholly-owned operating subsidiary, Free State Consolidated Gold Mines (Operations) Limited.

	Quarter ended Mar. 1990	Quarter ended Dec. 1989	Year ended Mar. 1990
Gold			
Area mined – m^2 000	943	1 043	3 980
Tons milled 000	6 434	6 513	26 055
Yield – g/t	4.31	4.25	4.22
Production – kg	27 727	27 710	109 851
Cost – R/ton milled	122.38	116.71	113.38
– R/kg produced	28 399	27 432	26 892
Price received on gold sales – R/kg	33 892	32 461	32 580
Metallurgical Scheme			
Slimes treated – tons 000	3 786	4 162	16 531
Uranium oxide produced – kg	96 813	107 156	424 526
Gold produced – kg	431	544	2 178
Acid produced – tons	85 258	98 636	396 303
	R million	R million	R million
Turnover	978.5	931.5	3 737.1
Profit before taxation	192.8	167.9	762.1
Provision for taxation	8.4	7.9	64.7
Profit after taxation	184.4	160.0	697.4
Appropriation for capital expenditure after loan finance	96.5	77.4	350.4
Profit available	87.9	82.6	347.0
Dividends – including a fund dividend of 145 cents per share			346.1
Increase in retained profit			0.9
Earnings per share – cents	75	71	295.0
Capital expenditure – R million	121.4	87.9	398.4

Note:
Orders placed and outstanding on capital contracts as at March 31 1990 totalled R102.9 million.

HOLDING COMPANY OF FREEGOLD
Orange Free State Investments Limited holds 58 761 785 Freegold shares representing 49.96 per cent (December 31 1989: 50.19 per cent) of the current issued share capital. As a result of the issue of new Freegold shares during the quarter Ofsil is no longer the holding company of Freegold.

PRODUCTION
As a result of a tornado which struck parts of Welkom on March 20 1990 some of the shafts and plants were without full electrical power for several days. As a consequence, gold production was adversely affected and damage estimated at R40 million was sustained to houses and surface installations.

Abridged preliminary profit announcements for the twelve months ended March 31 1990

Ofsil

Issued Capital: 22 514 094 ordinary shares of one cent each

	Twelve months ended Mar. 1990	Eighteen months ended Mar. 1989 (Audited)
	R million	R million
Income from listed associate (1989: subsidiary) company	173.3	258.6
Profit before taxation	173.1	257.9
Taxation	0.1	0.1
Profit after taxation	173.0	257.8
Dividends – interim of 390 (1989: first interim – 311) cents per share paid on December 15 1989	87.8	70.0
– 1989: second interim – 418 cents per share	–	94.1
final 378 (1989: 416) cents per share payable on or about June 15 1990	85.1	93.6
Increase in retained profit	0.1	0.1
Earnings per share – cents	768	1 146

As a result of the issue of 540 916 new Freegold shares during the quarter ended March 31 1990, the company's interest in Freegold at March 31 1990 was 49.96 per cent (March 31 1989: 50.27 per cent). Ofsil is no longer the holding company of Freegold.

Welkom

Issued Capital: 35 350 937 ordinary shares of 50 cents each

	Twelve months ended Mar. 1990	Eighteen months ended Mar. 1989 (Audited)
	R000	R000
Income from listed investments	70 703	105 320
Profit before taxation	70 272	104 734
Taxation	10	19
Profit after taxation	70 262	104 715
Dividends – interim of 100 cents (1989: first interim – 80 cents per share (paid on December 15 1989)	33 351	28 281
– 1989: second interim – 108 cents per share	–	38 179
– final of 98 (1989:108) cents per share payable on or about June 15 1990	34 644	38 179
Increase in retained profit	267	76
Earnings per share – cents	199	296

Dividend declarations

Final dividends

On Thursday, April 19 1990, final dividends for the year ended March 31 1990 were declared in South African currency payable to holders of the following companies' ordinary and S ordinary shares:

Company	*Dividend number*	*Cents per share*
Ergo	23	55
Freegold	70	145
Ofsil	9	378
Welkom	66	98

	1990
Last day to register for dividends (and for changes of address or dividend instructions)	Friday, May 11
Registers closed from	Saturday, May 12
to (inclusive)	Saturday, May 26
Ex-dividend on Johannesburg and London stock exchanges	Monday, May 14
Currency conversion date for sterling payments to shareholders paid from London	Monday, May 14
Dividend warrants posted	Thursday, June 14
Payment date of dividends on or about	Friday, June 15
Rate of non-resident shareholders' tax	15 per cent

Share warrants to bearer

Holders of share warrants to bearer issued by Freegold and Ofsil are notified that their dividends are payable on or after Friday, June 15 1990, upon presentation of coupons marked "South Africa" and No. 9 on the side reflecting the share warrant number, at the offices of First National Bank of Southern Africa Limited, Stock Exchange Branch, Diagonal Street, Johannesburg, South Africa; Union Bank of Switzerland, Bahnhofstrasse 45, 8021 Zürich, Switzerland; Credit du Nord, 6 and 8 Boulevard Haussmann, 75009 Paris, France; and Banque Bruxelles Lambert, 24 Avenue Marnix, 1050 Brussels, Belgium, only. Coupons must be left at least four clear days for examination.

The full conditions relating to the dividends may be inspected at the Head and London offices of the companies and the transfer secretaries.

By order of the boards
ANGLO AMERICAN CORPORATION OF SOUTH AFRICA LIMITED
Secretaries
per: C.R. Bull
Senior Divisional Secretary

April 19 1990

Notes
1. Unless otherwise stated all results are unaudited.
2. The increase in share capitals during the quarter resulted from the issue of shares to Anglo American Corporation of South Africa (AAC) to finance the acquisition of AAC shares for distribution to employees who participate in The Anglo American Group Employee Shareholder Scheme.
3. All companies are incorporated in the Republic of South Africa.
4. The unabridged reports will be posted to members, debenture and option holders, and to persons on the mailing lists. Copies of the unabridged reports are available from the Transfer Secretaries and the Head and London Offices.

TRANSFER SECRETARIES
Consolidated Share Registrars Limited
1st Floor, Edura
40 Commissioner Street
Johannesburg 2001
(PO Box 61051, Marshalltown 2107)

Barclays Registrars Limited
6 Greencoat Place
London SW1P 1PL

HEAD OFFICE
44 Main Street
Johannesburg 2001
(PO Box 61587, Marshalltown 2107)

LONDON OFFICE
40 Holborn Viaduct
London EC1P 1AJ

Johannesburg
April 19 1990

UK COMPANY NEWS

Higher margins and existing stores growth behind rise to £10.5m

Wm Low meets City forecasts

By Maggie Urry

WM LOW, the Dundee-based food retailer which was recently in abortive discussions with Isosceles to buy a package of Gateway stores, has revealed first half profits at the top end of analysts' expectations.

In the 28 weeks to March 17, pre-tax profits were £10.5m, a 28 per cent increase over the previous £8.2m. Sales were 18 per cent up at £185m.

The profit gain came through strong volume growth in existing stores and higher margins. Mr Christopher Blake, chairman, said "current trading remains buoyant" and he expected "another successful year's results."

Mr James Millar, managing director, said the results were a continuation of the work the group had been doing and showed that even without having national scale "we can do the job."

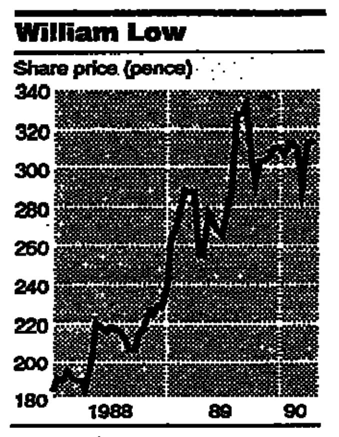
He said that he was disappointed not to have bought the package of 81 stores from Isosceles, some of which would have been sold on, but that the group had no plans to merge with another company.

Operating margins rose to 6 per cent compared with 5.2 per cent in the first half of the previous year and 4.1 per cent in the year before that.

Mr Millar said that the same rate of growth in margins could not continue and that in future growth in turnover would be the driving force behind profit growth.

The group plans to spend £30m or more in each of the current and next financial years on developing new stores. This will "sustain our commitment to strong organic growth," said Mr Blake.

Of the 18 per cent sales rise, 8.7 per cent came from sales volume gains in like-for-like stores, with new stores contributing a further 4.3 per cent of sales growth, and inflation 5 per cent.



Operating profits were 35 per cent up at £11.1m, but there was an interest charge of £590,000 (nil) relating to the development spending. A further £639,000 (£360,000) of interest was capitalised.

Earnings per share, fully diluted, rose 31 per cent to 13.18p and the interim dividend is increased by 19 per cent to 2.5p (2.1p).

● COMMENT

Low has again turned in some fine figures, but the market response seemed grudging, leaving the shares unchanged at 314p yesterday. However, the shares have risen 8 per cent or so since the talks with Isosceles broke down at the end of March and fears of a rights issue evaporated. While the market perceives a need for Low to take a big leap, it is nervous of Low actually making one. Low has plenty of growth to come from its ambitious store opening programme, although this will introduce gearing to the balance sheet, to the tune of about 30 per cent by the year end, and interest charges to the p and l account. And the days of repeated, large margin gains have to be coming to an end. Even so a prospective p/e of around 11.7 on a pre-tax forecast of £21.3m (£17.6m), is hardly excessive.

Great Southern advances to £3.5m

IN SPITE of the mortality rate being below expectations throughout most of 1989, Great Southern Group lifted pre-tax profits from £3m to £3.5m for the year.

Turnover of this USM-quoted funeral director rose 19 per cent to £22.13m (£18.61m) while trading profit surged 40 per cent to £4.92m (£3.51m), with margins increasing significantly to 22.2 per cent (18.8 per cent).

Mr James Smillie, chairman, said funeral services provided £3.57m (£2.07m) of operating profit, ancillary services £339,000 (£453,000), and crematoria and cemeteries £1m (£981,000).

The interest charge was up 64 per cent to £1.37m. Borrowings were some £3m higher than anticipated, but market conditions permitting, property disposals in hand or available through further rationalisation should contribute to the reduction this year, Mr Smillie claimed.

Adverse market conditions prevented the placing of shares to raise the £2m deferred consideration for TH Sanders, and that had to be met by cash. The Richmond Hill property had not yet been sold for residential development.

Trading levels since December had increased significantly – due partly to the more normal mortality rate – but also to the benefit of further margin improvements in the core and acquired businesses.

Chosen Heritage, the pre-arranged funeral scheme, had sold a total of 21,000 plans with a face value of over £13m.

Earnings came to 16.9p (15.6p or 19.1p including exceptional item).

The final dividend is 5.4p for a total of 8p (7p).

Listing and rights for Northern Investors

By Ian Hamilton Fazey, Northern Correspondent

NORTHERN INVESTORS, the successful regional venture capital fund set up in Newcastle-upon-Tyne in 1984, is to be introduced to the Stock Exchange next Wednesday.

Dealings will start a week today.

The company already has 120 shareholders and does not need to invite subscriptions.

The full listing will be immediately followed by a one-for-two rights issue aimed at raising a net £2.3m for further investment in unquoted companies in the north-east.

The 1.25m new shares will be offered at 200p and most institutional shareholders have already told Wise Speke, the stockbroker underwriting the issue, that they will take up their rights.

Leading shareholders include British Gas, ICI, Vaux Group, South Tyneside and Cleveland County council pension funds, and Cookson.

Most of the 70 private investors are Wise Speke clients.

Northern Investors started with £5m of share capital raised mainly from locally-based companies, pension funds, other institutions and private investors. Mr Michael Denny, formerly regional director of the National Enterprise Board, became managing director.

By the end of March this year net assets had grown to £7m and included investments in 31 companies.

The compound pre-tax internal rate of return on long-term investments has been about 25 per cent a year during the company's lifetime.

Northern Investors will be classed as an investment company by the Stock Exchange but will have investment trust status with the Inland Revenue so that it will have no tax liability on gains from future realisations of investments.

The flotation is a northern milestone in the development of regional venture capital funds in Britain, which hardly existed in 1984. Sumit, a Birmingham fund, has already floated.

NEWS DIGEST

Liberty up nearly £1m to £7.42m

A SUCCESSFUL year in converting and wholesaling enabled Liberty to raise pre-tax profits by nearly £1m to £7.42m in the 12 months to January 27 1990.

That success offset reduced profit in UK retailing, which was affected by disruption to transport services and the economic climate, directors said.

The division's trading profit dropped to £1.96m (£2.82m) on turnover 12.5 per cent ahead at £52.6m, some 4 per cent of which came from new branches.

Group turnover rose 17 per cent to £85.15m (£72.76m). Earnings worked through at 26.32p (24.39p) and the final dividend is 4.55p for a total of 5.95p (5.04p).

Trading profit in converting and wholesaling moved up to £4.64m (£3.37m). Exports from the UK rose 38 per cent; in its first full year Liberty Japan produced excellent results.

Printing contributed £926,000 (£539,000). Fabric printing in France improved substantially. Demand for printing and dyeing was strong throughout the year.

In the current year retail sales and orders in the wholesale and printing companies had shown an encouraging improvement, directors said.

Silvermines more than doubles to I£7m

Although Silvermines Group increased manufacturing earnings by 35 per cent in 1989, an upsurge in investment income more than doubled the overall pre-tax profit from I£3.22m to I£7m (£6.82m).

Investment income came to I£4.73m (I£248,000), the main contribution stemming from the sale of the shareholding in Tuskar Resources. Operating profit in engineering and electronics rose to I£5.76m (I£4.26m).

Mr John O'Neill, chairman, said in the current year order intake and invoiced sales for manufacturing were ahead of expectations, and showed a significant increase over 1989 for the first quarter.

The acquisition of Muirhead Vactric Components effectively doubled the size of the electrical and electronic division and was expected to make a significant contribution.

Income from property and developments through the Newport subsidiaries should further enhance profit.

Earnings for 1989 increased to 19.51p (9.67p). The dividend is held at 4p with a final of 2.5p.

Miskin checked by property slowdown

Miskin Group, the property and transport services group which came to the USM a year ago, achieved a 14 per cent improvement in pre-tax profits for the year to end-January 1990.

The increase, from £523,612 to £559,393, was achieved on lower turnover of £6.8m (£7.02m).

Directors said that the slow sales of residential property had affected the profit levels of that division and would do so particularly in the first half of the current year.

However, current prospects were favourable, they said, and it was anticipated that with the amount of work already contracted, turnover would increase considerably in the construction and building division.

As forecast, a final dividend of 1.375p is proposed. Earnings per share fell from 6.9p to 4.5p or from 5.1p adjusted for losses brought forward and recoverable tax previously written off.

Emess chairman's earnings rise 48%

Emess, the lighting and electrical accessories group, paid Mr Michael Meyer, chairman, £152,000 in 1989, 48 per cent more than the £103,000 he received in the previous year.

The company's pre-tax profits rose by 24 per cent in 1989, but earnings per share increased by only 1 per cent.

S Daniels confident despite bigger loss

S Daniels, a supplier of food and drink products, is confident of a change in its fortunes for the current year after reporting an increased deficit in 1989.

The pre-tax loss rose from £231,000 to £420,000, on turnover up to £38.21m (£35.65m).

Mr Paul Daniels, chairman, said the restructuring of the group was now largely complete, with ingredients and retail supplies as its two principal trading divisions.

With an increased contribution from new businesses and a strong balance sheet, he was confident that 1990 would bring a turnround in results after two extremely difficult years.

In view of the confidence in the changed group, the final dividend is held at 1.25p for an unchanged total of 2.5p. Losses per share rose to 5.5p (2.34p).

Trading conditions for traditional businesses remained as difficult as in 1988. But the board implemented the first stages of the strategic plan to end the poor performance of some group operations and move into related higher margin areas.

The most significant step was the sale of the canned food division which gave an extraordinary profit of £2.7m. It also led to an improvement of over £5m to the cash position and significantly enhanced the balance sheet.

In September 1988 Daniels acquired Kluman & Balter, a bakery ingredients supplier, and the chairman said profits increased substantially, more than fulfilling expectations.

In February this year Kandyman, a supplier of pic 'n' mix confectionery services, was purchased and was expected to provide significant profit growth.

FKI spends £6m on further expansion

FKI, the Halifax-based electrical equipment and engineering group, has acquired Columbia International for some £6m in cash and loan notes.

This is its fifth recent acquisition. Together, they have annual aggregate sales of £20m and will all be contributing to profits by the second half of this year.

Columbia makes printer ribbons and specialist coated products for use on computers and office equipment. It supplies major companies in the security printing, Auto ID and office equipment markets.

FKI also announced that it had received "some excellent contracts" in the last month, the largest being in excess of $22m from the Boeing Corporation for power and free automation systems.

The rationalisation plan within Babcock Industries Inc was progressing well with a rapid manpower reduction of 500 nearing completion. The closure of several factories had been announced.

PUBLIC WORKS LOAN BOARD RATES

Effective April 18

	Quota loans repaid			Non-quota loans A* repaid		
Years	by EIP†	At††	at maturity§	by EIP†	At††	at maturity§
1			15			15¾
Over 1 up to 2	14⅞	14¾	14⅜	15⅞	15¾	15⅛
Over 2 up to 3	14½	14½	14	15½	15½	14¾
Over 3 up to 4	14¼	14¼	13⅝	15¼	15¼	14⅜
Over 4 up to 5	14	14	13⅜	15	14⅞	14⅛
Over 5 up to 6	13⅞	13¾	13¼	14⅜	14¼	13¾
Over 6 up to 7	13⅝	13½	13⅛	14⅛	14	13⅝
Over 7 up to 8	13½	13⅜	13⅛	14	13⅞	13⅝
Over 8 up to 9	13⅜	13¼	13	13⅞	13¾	13½
Over 9 up to 10	13⅜	13¼	13	13⅞	13¾	13½
Over 10 up to 15	13⅛	13	12⅜	13⅝	13½	12⅞
Over 15 up to 25	12⅝	12⅛	11¾	13⅛	12½	12¼
Over 25	12	11¾	11¾	12½	12¼	12¼

*Non-quota loans B are 1 per cent higher in each case than non-quota loans A. †Equal instalments of principal. †† Repayment by half-yearly annuity (fixed equal half-yearly payments to include principal and interest). § With half-yearly payments of interest only.

UK COMPANY NEWS

Losses cut to £2.42m and profits expected in 1991

Midland & Scottish calls for £149m to fund buy

By David Thomas, Resources Editor

MIDLAND & Scottish Resources, the loss-making USM-quoted oil production company, is raising £149.2m by a rights issue to acquire the world's largest floating oil production facility.

The announcement was made at the same time as reporting an after-tax loss for 1989 of £2.42m on turnover of £735,000. That compared with a loss in 1988 of £10.81m on turnover of £1.28m.

Prices of both classes of shares closed at 178p, down 23p on the day.

The acquisition will be achieved by the purchase of Tortin Investments Limited, a Guernsey-based company in which four of Midland & Scottish directors have a 68.3 per cent interest. Midland is paying a maximum £155.9m, of which £120.9m will be in cash and the balance in non-interest bearing convertible loans.

Six of Midland's eight directors have either a direct or indirect interest in Tortin and have not taken part in board discussions of the acquisition.

The rights issue is unusually large for a relatively small company, while the structure of the deal is exceptionally complicated. "It's a very unusual deal, but then it's a very unusual company," one of Midland's financial advisers said.

Midland is raising the cash by an issue on the basis of 11 new shares for 10 held. The balance of £28.3m not used for the acquisition will be used for working capital.

Four directors who own 49.4 per cent of Midland & Scottish through a private company, Midland & Scottish Group, have agreed to subscribe to the rights issue. No information was available last night on whether British & Commonwealth Holdings, which holds 19.8 per cent, would subsribe.

However, Mr John Gunn, chief executive of B&C and a director of Midland, is subscribing for his relatively small entitlement.

Midland has one main asset at present, a 44 per cent interest in the Emerald field in the North Sea and the Ali Baba, a floating oil production facility, which is developing the Emerald field.

The acquisition of Tortin is intended to give it another asset similar to the Ali Baba. These floating oil facilities are seen by some observers as central to attempts to boost the development of marginal oilfields in the North Sea.

Tortin has one main asset, a contract with Fincantieri, the Italian state shipbuilding company, to build a semi-submersible floating production facility capable of processing 100,000 barrels of oil and handling 130m cubic feet of gas a day. The facility, which is being built in Genoa, is scheduled for delivery in September 1992. The contract has been valued at £142m.

During 1989 Emerald development costs of £27.7m were capitalised, as will development costs incurred this year. Oil from Emerald will not flow until towards the end of 1990, after which Midland hopes to move into profit.

The company cannot pay dividends without the consent of the banks which funded the Emerald development and also of the Department of Trade and Industry which guaranteed the loans of the Ali Baba conversion.

It assumed its present form in January last year, resulting from Midland & Scottish Group's taking a controlling stake in Jebsens Drilling, an offshore drilling contractor the shares of which had been suspended on the USM for almost two years.

Banks help Astra in rescue deal

By Tim Dickson in Brussels and Jane Fuller in London

ASTRA Holdings, the munitions and fireworks maker, yesterday struck a surprise deal with Société Générale de Belgique to save PRB, the Belgian munitions maker which it bought last year, from almost certain bankruptcy.

The agreement involves formulating a new industrial plan for PRB in the context of a concordat, which offers temporary protection from creditors. PRB's two main banks have advanced new short-term credit facilities to keep the business afloat until May 4.

Yesterday's development buys time so that a detailed solution can be found and allows tempers to cool after a period of bitter allegations on all sides.

Astra bought PRB from the La Générale subsidiary Gechem last September, when it thought the company was going to make a £2m profit in 1989. It has since alleged that it unearthed a £12m loss.

Belgium's commercial court yesterday gave its blessing to the concordat procedure, but will only give its final consent on the basis of plans to be drawn up by PRB in the next two weeks. These have to be agreed by two thirds of the creditors.

Assuming this is granted, Astra has agreed to drop its litigation threats.

PRB may well be hoping to find a partner to continue the business as a going concern, though a controlled break-up is thought to be another option.

La Générale made it clear that while it was willing to make a financial contribution to the rescue, it would not be taking a new equity stake in PRB.

Astra paid £1m for PRB's share capital and repaid more than £20m in inter-company debt.

Mr Roy Barber, chairman of Astra since early March, said the group would not have to pay out a penny more as a result of the agreement. He had, however, hoped to do better.

"I'm afraid a large part of the £21m has gone down the drain for the time being." This amount had been written off last month.

Pearson chairman receives 55% rise

By Clay Harris

LORD BLAKENHAM, chairman and chief executive of Pearson, the conglomerate which owns the Financial Times, was paid £465,000 last year, a 55 per cent increase over the £299,000 he received in 1988. Pearson said a large, but unspecified element of the rise was performance-linked.

Meanwhile, Mr Jonathan Taylor, chief executive of Booker, took a pay cut of nearly £60,000 in 1989 because the agribusiness and health products group only barely improved earnings per share.

Pearson directors' bonus payments are also linked to growth in earnings per share. The board's remuneration committee sets a target at the beginning of each financial year based on the outlook for the economy and the company. If it is exceeded, directors receive additional pay.

In 1989, Pearson's eps rose by 20 per cent to 67p.

Other directors also benefited from large rises. The next three highest paid directors after Lord Blakenham received between £355,000 and £400,000 each, against a range of £230,000 to £295,000 in 1988.

At Booker, Mr Taylor's salary fell from £238,415 to £178,791 because he received no performance-related pay. Normally, up to 60 per cent of his salary can be composed of bonus payments linked to growth targets in earnings and pre-tax profits.

Booker's profits went up by 15 per cent to £90.5m and earnings by less than 1½ per cent to 37.1p. Both increases fell short of the threshold required to trigger the bonus.

BOARD MEETINGS

TODAY

Interims- British Empire Securities & General Trust, International Investment Trust Company of Jersey.

Finals- Berry Starquest, Children's Medical Charity Investment Trust, Farnell Electronics, Govett Oriental Investment Trust, Ketson, Polymark International.

FUTURE DATES

Interim-	
Fleming Universal Inv Tst	Apr. 26
Finals-	
Appleby Westward	May 17
Aquascutum	Apr. 27
Bletchley Motor	Apr. 27
Cargo Control	May 1
Conrad Continental	May 1
Futura	Apr. 30
Power Corporation	Apr. 23
Quicks	Apr. 25
Upton & Southern	Apr. 27

Acquisitions boost Albert Fisher

By Clare Pearson

ANOTHER STRING of acquisitions helped Albert Fisher Group, the food distributor and processor, lift pre-tax profits by 53 per cent, from £19.95m to £30.5m, in the six months to February 28 1990. Underlying organic growth was 23.6 per cent.

Fisher mounted an unusually structured £180m rights issue and placing towards the end of the half-year, which left it with about £80m net cash for further acquisitions and product development.

It was underwritten by Corporate Partners, a US investment fund, which also took 5.01 per cent of the shares.

The arrangement prompted criticism from some shareholders. But Mr Tony Millar, chairman, said yesterday: "It has now been recognised that we did something different for a good reason", which was to raise the funds without risking the vagaries of short-term market fluctuations.

Mr Millar said one of Fisher's current priorities was to build up business in better-margin value-added products in the US. These, chiefly precut salads, accounted for only 10 per cent of US sales while in Europe value-added products made up about 60 per cent.

In Europe, Fisher was keen to extend the range of products made by Holco, a West German company acquired in January which processes asparagus and mushrooms.

Mr Millar said companies acquired during the half-year all made useful contributions. On a like-for-like basis, European businesses produced profits of £18.43m (£15.3m) on turnover of £37.52m (£26.49m). North America made £12.02m (£9.34m) on sales of £22.15m (£20.11m). Head office expenses took £80,000 (£300,000).

European fresh produce businesses made £5.34m (£4.55m). There was some shortfall in fruit sourced from Spain because of heavy rains in citrus growing areas. Food processing and distribution contributed £13.09m (£10.75m). Within this, there was some pressure on margins in UK frozen food operations.

In North America there was a good recovery at Ziff, the paper and plastics subsidiary, after staff cutting and reorganisation measures last year.

Tony Millar, left, with Ian Quinlan, finance director: unusual rights issue left group with £80m for continued expansion

Group turnover expanded by 35 per cent at £496.64m (£368.95m). Earnings per share rose from an adjusted 3.72p to 4.59p, and the interim dividend is stepped up from 1.25p to 1.5p.

See Lex

CRH in joint venture for US glass business

By Andrew Taylor, Construction Correspondent

CRH, the international buildings materials group and one of the Irish Republic's biggest companies, has joined with a group of Georgia investors to pay $100m (£61m) for a half share in a US architectural glass business.

The 50 per cent holding has been acquired in the architectural glass division of HGP Industries, which operates in 13 states.

The stake has been acquired by Oldcastle, a CRH subsidiary, and Georgia Investors, a private family investment group.

The Irish group put up $30m of the purchase price which includes warrants to allow the group to increase its half share in the 50 per cent stake.

The remainder of money, except for $1m from Georgia Investors, has been provided by bank borrowing at interest rates currently at 11 per cent.

CRH said the acquisition, substantially financed by non-recourse debt, was expected to make a positive contribution to earnings in the current year.

Last year, the US had accounted for just over a quarter of the group's pre-tax profits of I£80.57m.

HGP has about 12 per cent of the $800m US architectural market which includes security glass.

Mr Don Godson, chief executive of Oldcastle, said "HGP provides a significant presence in a construction materials sector which is less cyclical and provides better access to higher value-added repair maintenance and improvement markets than many of our existing businesses."

All-round improvement lifts Crean to I£21.55m

JAMES CREAN, the Dublin-based industrial holding company with interests in electrical products, aircraft leasing and food and beverages, yesterday announced a 28 per cent increase in profits for 1989.

Directors said that all the group's principal subsidiaries, including Inishtech, had produced satisfactory sales and profits performances, as did International Aircraft Services, in which the group holds 30.67 per cent.

At the pre-tax level group profits rose from I£16.87m to I£21.55m (£21.03m) derived from external sales of I£184m (I£134.6m). Income from related companies I£4.66m (I£4.7m).

After tax of I£3.94m (I£2.28m) and minorities of I£743,000 this time, fully diluted earnings per share came out at 53.3p (47.6p).

There was an extraordinary debit of I£113,000 (I£659,000) and a goodwill charge of I£1.01m (I£299,000), which has been excluded from the earnings calculation.

The proposed final dividend of 10.4765p makes a total for the year of 17.6265p (15.8125p).

Managing director leaves after 20 years

Major staff departures hit Ivory & Sime

By David Waller

THE MANAGING director, the investment director and four senior fund managers yesterday resigned from Ivory & Sime, the former stalwart of the Edinburgh investment management scene.

Mr David Ross, the managing director who has worked for Ivory & Sime for more than 20 years, is leaving with the four fund management colleagues to set up an independent, unquoted Scottish investment management business.

Mr Graeme MacLennan, appointed as investment director just two years ago, is leaving for different reasons and the timing of his long-planned departure is a matter of convenience, according to Mr Richard Carswell, marketing director.

The abrupt departures will inevitably come as a blow to the credibility of a company which was beset by turmoil at the senior management level for most of the 1980s. Rivals at other Edinburgh fund managers declared it "a sad day for Scotland".

Talking to the Financial Times only last month, Mr Ross was frank about the company's past problems, acknowledging that pension fund money built up to £1bn between 1979 and 1985 fell to £500m between 1985 and 1988. He was then emphatic that management stability had been achieved at last.

Yesterday Mr Ross explained that over the weekend he had gone to speak to the four fund managers after hearing that they were planning to set up their own business.

His duty as managing director was to ask them to resign, he said. But they were good friends and the prospect of working for a private rather than a public company was enticing, so he asked to join them and earlier this week offered his resignation to the board along with the others.

He added said that no Ivory & Sime clients had been contacted and the five would have to build the new business up from scratch.

Mr Carswell said that Mr MacLennan, who had himself defected from the nearby Edinburgh Fund Managers, had "never settled down" to his job as investment director. According to Mr Carswell, this had been recognised some time ago by both Ivory & Sime and Mr MacLennan and it seemed sensible for him to leave at the same time as the others.

Mr Ross, who started at Ivory as an office boy, was appointed as the firm's first managing director in 1988.

Mr Carswell said yesterday that the company's investment strategy would be unchanged. Since 1988, the company has managed to rebuild its pension fund monies back to previous levels by the aggressive pursuit of overseas fund management business, a result of the company's novel strategy of buying overseas fund managers or opening its own offices overseas.

Mr Ross, who owns 3 per cent of the company's shares, said he had no intention of selling them.

Ivory & Sime is owned 25 per cent by Ensign Trust, 15 per cent by Sumitomo Life Assurance and some 30 per cent by staff. None of the other people departing has a significant stake.

Avena raises terms for Runciman as holding nears 50%

By Clare Pearson

THE BID battle at Walter Runciman, the shipping and security equipment group, intensified yesterday when Avena, the Swedish diversified company, again increased the terms of its hostile offer and snapped up more shares in the market to bring its holding within sight of 50 per cent.

But Viscount Runciman, chairman, announced his company had started talks with a third party that might or might not lead to an improved offer being made.

Avena improved its cash offer, which is now final, by 65p to 690p per share. There is also a 9p dividend entitlement to value the company at about £68m. It now claims 46.7 per cent of the shares, including an 8.4 per cent block sold by Scottish Amicable Investment Managers yesterday.

The move by Scottish Amicable, a long-term investor, drew dismayed criticism from Viscount Runciman, who said it had made the sale before talking to him. He said "I was extremely surprised that they did not telephone me before they sold, as we had arranged."

Runciman urged its other shareholders to take no action while merger discussions with the third party, which might or might not lead to a higher offer, got underway. Viscount Runciman said an initial talk some weeks ago had only yesterday transformed itself into serious negotiations.

Avena's new terms mark its second improvement this week. Its original offer of 520p drew acceptances in respect of a less than 1 per cent of the shares, apart from those held by the National Rivers Authority. This investor was believed to the seller of a 4.4 per cent stake which was also sold to Avena yesterday.

Some 30 per cent of the shares in hands related in varying degrees of closeness to the founding Runciman family remain uncommitted. A 15.6 per cent stake is held by Runciman (Trustees) but the balance is in the hands of individual holders.

Viscount Runciman would not be drawn on the identity of the party but speculation focused on Scandinavian shipping companies with similar interests in the liquid gas carriers, which Runciman operates as part of the Unigas consortium.

Sketchley breathes again as Compass takes the pressure off

By Andrew Bolger

SKETCHLEY, the beleaguered industrial services and cleaning group, last night escaped hostile takeover for the second time within seven weeks after Compass Group effectively abandoned its bid.

Compass, the contract cleaning and services company, said it did not believe it would be in the interests of Compass shareholders to revise its £88m offer to a level which would be likely to receive the support of the major institutional shareholders of Sketchley.

With Compass's shares closing down 5p at 305p, its all-paper offer valued each Sketchley share at 244p. Shares in Sketchley had closed unchanged at 265p before the Compass announcement.

Gerry Robinson: acquisitions only on terms which are in own shareholders interests

Godfrey Davis, the car dealing and laundry group, dramatically withdrew its £126m offer for Sketchley at the beginning of March after taking fright at its reduced profits forecast.

Sketchley shares had plunged 98p to 251p after Godfrey Davis withdrew its shares-and-cash offer, which dropped in value from from 380p to 350p per share in the course of the bid.

Mr Gerry Robinson, chief executive of Compass, said last night: "Having studied Sketchley for some years we were then approached by Sketchley as a white knight during the Godfrey Davis bid and were given the opportunity of a detailed look at the company.

"Following Godfrey Davis's withdrawal and the dramatic drop in the Sketchley share price, we saw the opportunity of acquiring the company on fair and reasonable terms. We are only prepared to acquire companies on terms which are in the interests of our own shareholders, and which will maintain and enhance the excellent prospects that Compass currently has."

Sketchley defended itself against the Compass bid by announcing the appointment of a new management team that its advising merchant bank, NM Rothschild, negotiated with for two weeks. Mr Malcolm Glenn had his resignation as chairman of Sketchley accepted hours after the Compass bid was launched.

The new managers are Mr John Richardson, a former managing director of Bond Corporation (UK) and chief executive of Hong Kong-based Hutchison Whampoa, and Mr Tony Bloom, ex-chairman and chief executive of Premier Group Holdings of South Africa.

Sketchley's management reshuffle, which includes a conditional agreement to grant the new men a potentially lucrative share options package, was supported by institutions which between them spoke for 34 per cent of the company's shares.

Subject to shareholders' approval, both Mr Richardson and Mr Bloom will be granted options to subscribe for shares amounting to 2.5 per cent of Sketchley's issued share capital. At the maximum subscription price of 265p, these would be valued at some £4.8m.

Hawtal Whiting motors back into the black

By John Griffiths

HAWTAL WHITING Holdings, the Essex-based vehicle engineering consultancy group, yesterday announced a return to profitability in 1989 as turnover increased by more than 60 per cent.

Mr John Whitecross, chairman, reported pre-tax profits of £2.17m, against a loss of £862,000 in the previous 12 months. Turnover amounted to £49.7m (£30.88m).

Earnings per share emerged at 16.9p (losses of 11.4p). Mr Whitecross said that in view of the group's return to profitability it intended to pay a 4p dividend. A nominal dividend of 0.1p was paid for 1988.

He attributed the improved performance to growth in Hawtal's operations world-wide, but with North America playing a significant part. The region now employs 45 per cent of the Hawtal work force.

The company believes it is now in a strong position to take advantage of one of the most significant trends in the vehicle industry – the reduction of new model cycle times from as much as seven years to as low as three years, as vehicle manufacturers come under increased pressure in the marketplace.

The increased frequency of the introduction of new models, and the greater variety of vehicles also expected to be produced, is expected to provide an increasingly powerful boost to the entire consultancy engineering sector.

Tilbury on acquisition trail with £8.85m deal

By Andrew Taylor, Construction Correspondent

TILBURY GROUP, the UK construction company, yesterday announced the first of several acquisitions which Mr Michael Bottjer, its chief executive, has said the group is pursuing.

Tilbury, which last year defeated an unwelcome takeover bid from rival contractor Lilley, has acquired Clough Smith, a heavy electrical engineering contractor, for £7.75m.

Tilbury has agreed to pay another £1.1m for land and buildings part of which are leased and occupied by Clough.

Earlier this month, Tilbury said it was pursuing several acquisitions including one on the Continent. Clough Smith last year made pre-tax profits of £1.1m on sales of £13.9m. Net assets in the last accounts were valued at £2.3m.

Tilbury's pre-tax profits last year increased by 87 per cent from £14.66m to £27.46m.

DIVIDENDS ANNOUNCED

	Current payment	Date of payment	Corresponding dividend	Total for year	Total last year
Crean (James) ♣ ....fin	10.4765	-	9.3125	17.6265	15.8125
Daniels (S) ....fin	1.25†	June 1	1.25	2.5	2.5
Drayton Cons Tst ....int	4.25	May 31	3.75	-	15
Fisher (Albert) ....int	1.5†	July 9	1.25	-	2.75
Frost Group ....fin	7.75	-	5.25	13	9.25
Gt Southern § ....fin	5.4	June 8	4.7	8	7
Hawtal Whiting ....fin	4	Aug 13	0.1	4	0.1
Int Business Com....fin	3	June 8	2.8	4.5	4.1
Lep ....fin	4.25	July 13	3.3	6	4.75
Liberty ....fin	4.55	May 31	4*	5.95	5.04*
Low (Wm) ....int	2.5	June 4	2.1	-	6.5
Miskin § ....fin	1.375	-	-	1.375	-
Rockfort ....fin	0.5	-	2.6	1.9	2.6
Silvermines ♣ ....fin	2.5†	July 2	2.5	4	4

Dividends shown pence per share net except where otherwise stated. *Equivalent after allowing for scrip issue. †On capital increased by rights and/or acquisition issues. §USM stock. ♣Irish currency throughout.

IN BRIEF

NORBAIN ELECTRONICS has conditionally agreed to acquire SEE, a distributor of closed-circuit television equipment for a maximum £1.49m cash. In the year to end-September, SEE achieved taxable profits of £262,000 on sales of £2.7m. Net assets were £133,000.

REALLY USEFUL Group: Offer by Jorraban to acquire shares not already owned by it has been validly accepted by holders of 3.21m RUG ordinary (9.7 per cent). Jorraban now owns 29.73m (89.5 per cent) RUG shares, including those owned by Mr Andrew Lloyd Webber.

VIBROPLANT has sold the waste disposal assets of Bath Plant Holdings to Drinkwater Sabey, a subsidiary of Attwoods, for £2.35m cash plus the assumption of approximately £280,000 of finance lease obligations.

WATERGLADE INTERNATIONAL Holdings has acquired a freehold office building in Oporto, Portugal, for Es40m. The building, comprising 500 sq m, is located opposite the Portuguese Stock Exchange. Company has also announced sale of two office buildings in Amsterdam to a local private company for Fl 8.5m.

Opec emergency meeting decision lifts oil prices

By Steven Butler

OIL PRICES staged a strong recovery yesterday after an announcement that the Organisation of Petroleum Exporting Countries would hold an emergency ministerial meeting on May 2 in an attempt to lift prices.

Mr Sadek Boussena, the Algerian minister who is Opec's president, said that the oil ministers would meet to "examine steps to take to arrest the degradation of the market and to restore prices" to the Opec level.

Mr Boussena is evidently referring to the $18 reference price for an average of select Opec crudes, which are now going for closer to $15. Prices have been driven down by a rise in oil stocks and a huge surplus of oil heading for market from the Middle East.

Announcement of the emergency conference came after Wednesday's steep fall in prices following a meeting between the oil ministers of Saudi Arabia, Kuwait, and the United Arab Emirates. Although the meeting produced vague pledges from Kuwait and the UAE to cut output, markets were unconvinced any significant action would be taken.

After yesterday's announcement, however, markets more than regained Wednesday's losses.

North Sea Brent crude for June delivery finished the day up 82½ cents at $17.12½ in European trading. On the New York Mercantile Exchange, where prices have been most volatile, June futures for West Texas Intermediate crude were up 70 cents to $18.79 in midday trading.

Prices had begun to rise in advance of the Opec announcement on unconfirmed rumours that Saudi Arabia was about to make a large cut in its oil output. Saudi Arabia, Kuwait, and the UAE are each producing far more than their agreed Opec quotas.

The May 2 meeting, to be held in Geneva, is formally of Opec's eight-member market monitoring committee. However, all 13 Opec members are planning to attend the meeting, which could take action to adjust Opec prices or production volume.

The scheduled May 25 regular conference of Opec ministers has been postponed to June 26.

Malaysia agrees to join cocoa producers' group

By Lim Siong Hoon in Kuala Lumpur

MALAYSIA, the world's fourth biggest cocoa producer, has agreed to join the Cocoa Producers' Alliance (CPA). It is still considering the possibility of joining the International Cocoa Organisation (ICCO).

The CPA appears to be more important to Malaysia. Joining it wins political goodwill for Malaysia and provides it with a forum for discussions about a new ICCO agreement.

Mr Lim Keng Yaik, Malaysia's Primary Industries Minister, earlier this month visited the Ivory Coast, the world's biggest cocoa producer, and Ghana, where he said he would recommend Malaysian participation in the international cocoa agreement to his government. Mr Lim seems, however, to be in no hurry to submit this recommendation.

"I'm not making a U-turn," he said, adding that further discussions with the local cocoa industry were required. Underneath Malaysia's procrastination over the ICCO lies its conviction that the two-year extension on the agreement provides only a temporary reprieve in a depressed market.

Eventually, Mr Lim said, producers might have to act among themselves to remove the cocoa surplus by cuts in production and exports.

The extended cocoa agreement contains no economic provisions. This might make Malaysia's participation easier, but it also made its membership academic, said Mr Lim.

He has asked CPA members to hold their next meeting in Kuala Lumpur.

● Malaysian cocoa production for the year to last September rose by 18 per cent from the previous year to 260,000 tonnes, according to estimates by the government's Federal Agricultural and Marketing Authority.

Brazil to resume its world sales of coffee

By John Barham in Sao Paulo

BRAZIL is to resume coffee exports today, after a month's suspension. Ms Zelia Cardoso de Mello, the Economy Minister, approved on Wednesday new policies to deregulate coffee exports and eliminate export taxes.

Most farmers and traders approved of the changes, saying a free market would reward efficiency and reduce the burden of red tape. "Brazil is one of the few countries that can produce coffee without needing government intervention, because we produce coffee in great volumes with considerable quality," said Mr Isaac Ferreira Leite, president of the Guaxupe coffee co-operative.

Under the new rules, coffee will be treated like Brazil's other commodity exports, such as orange juice or soyabeans, which are regulated by a department of the Economy Ministry. The government merely ensures that companies' declared export prices are in line with the international and domestic markets, to prevent exchange fraud.

Coffee shipments virtually halted after the new government imposed drastic anti-iflation measures on March 16. The same day, it decreed the closure of the Brazilian Coffee Institute (IBC), the agency that regulated coffee trading, throwing the market into limbo.

Exports were also blocked by a sudden revaluation of the Brazilian cruzeiro, although the Central Bank has now allowed the currency to float down by 17 per cent, making exports profitable again.

IBC used to regulate coffee prices, quality and export volumes carefully. It charged a 6 per cent export tax to finance buffer stocks, which now stand at 17m bags (of 60kgs).

Brazil's Ministry of Agriculture will probably become responsible for domestic policies, such as establishing support prices and financing. A separate department is to monitor domestic prices and supplies and manage stocks.

Government regulation became increasingly unnecessary with the collapse last July of the international coffee agreement. The imposition of a free domestic market in Brazil, the largest coffee producer, will make it all the more difficult to revive the agreement, which fixed world prices and trade quotas for each coffee producing country.

Although producers complain that prices are still too low, traders are optimistic that free market conditions favour Brazil.

Soviet payment problems worry grain trade

By Bridget Bloom, Agriculture Correspondent

REPORTS THAT the Soviet Union is seriously behind in payments for western grain imports have provoked a flurry of official "no comments" from the international grain trade.

"Its a very sensitive subject," said one executive confidentially yesterday. He added – off the record – that what was happening should probably be seen as the "typical fall-out from perestroika" rather than a Soviet cash crisis which could have long-term effects on the grain trade.

Secrecy makes it difficult to establish the facts with certainty. However, what seems to have happened is that the big US grain trading companies – including Continental, Cargill and Louis Dreyfus – earlier this month decided not to sell to the USSR because Moscow had not paid up on earlier contracts.

Smaller companies, however, presumably with less outstanding credit, did contract some sales. Figures of 300,000 tonnes of wheat sold by the US-based Mitsubishi International among others are quoted, toethger with 1.7m tonnes of coarse grains.

In the last 12-18 months as a consequence of economicrestructuring, the Soviet Union has shifted from buying grain for cash – raised through credit lines within the internal Soviet system – to seeking credit, usually of 120 days, from the sellers. The suggestion is that Moscow may be behind on these payments to the big companies to the tune of $500m and that this has provoked them to decline further sales until the backlog is sorted out.

According to figures from the International Wheat Council, western grain sales to the USSR have so far amounted to over 31m tonnes in the 1989-90 year (ending June 30) of which just over 12m tonnes is wheat and around 19m tonnes comprises coarse grains (including maize and other seed grains).

The EC has contracted to sell about 4.3m tonnes of wheat and 3m tonnes of coarse grains and is not apparently involved in the current credit affair.The main difficulties for the ECrecently have centred on tying-in availability of Soviet shipping with EC rules governing export subsidies on the sales.

Soviet ships have been slow in arriving from Baltic ports and the EC Commission has thus reluctantly extended its export restitutions beyond their traditional one month validity.

Western grain sales to the USSR 1989-90 (m tonnes)

	Wheat	Coarse grains	Total
EC	4.3	3.0	7.3
US	3.9	13.5	17.4
Canada	2.0	0.5	2.5
Others	2.1	1.9	4.0

Source:International Wheat Council

The current credit backlog is thought to apply only to sales of US grains but if the difficulties were to last for more than a few weeks the consequences could be very serious. The USSR is by far the most important customer for western grain surpluses.

For example, US grain sales at $1.9bn in 1987-88, were nearly four times as important as its non-agricultural exports, while last year (1988-89) US agricultural exports to the USSR totalled $3.3bn.

Traders differ over the reasons for the current problems and thus their potential severity. The prevailing view seems to be that perestroika, involving the restructuring of the Soviet economy, has ruptured previously well-established bureaucratic procedures. Under these, Exportkhleb, the Soviet grain buying agency, was provided by the Soviet Bank of Foreign Trade with promissory notes for sales.

Since the big western companies have apparently not received those promissory notes they have for the time being stopped sales, but feel that the problem is bureaucratic and will be sorted out.

As Mr Leonard Alderson, chairman of the board of Cargill International, put it from Geneva yesterday: "our business with the Soviet Union has perhaps been slow for a time because of payment problems." However, noting an improvement in the situation in the past 10 days during which some (unspecified) sales had been made, Mr Alderson said that the company's 26 years' experience of trading with the USSR had led it to hope that "these problems will soon be a thing of the past."

Yet others point to the possibility of a longer-term Soviet cash crisis. They point to speculation that the reason for the recent drop in the price of gold (which was attributed to sales by Saudi Arabia) was in fact Soviet gold sales, the proceeds from which were needed to keep Soviet imports afloat.

Whatever the reasons, western traders seem agreed on one thing: the Soviet Union's need for external credit is likely to increase rather than decline. They are thus anxious to see the successful conclusion of the current negotiations between the US and the USSR.

These talks, which have already produced agreement on a new long term grain accord, are intended to result in Moscow receiving most favoured nation status, which in turn would make the country for the first time eligible for US Government credits.

Swedish farmers face an icy blast

Robert Taylor on plans to get rid of subsidies on food production

SWEDISH CONSUMERS, served by a heavily subsidised and regulated agricultural sector, suffer the highest food prices in the western world, except for the Norwegians. Yet the country's agriculture is about to be reformed, despite stiff resistance from many of its farmers.

Mr Mats Hellstrom, the Minister of Agriculture in Sweden's minority Social Democratic government, will Next Monday unveil the final set of proposals designed to liberalise an outmoded system, based on the principle of self-sufficiency and dating back to the 1930s.

The primary recommendation is expected to be a five-year transition period, starting on July 1, for the eventual abolition of existing regulation of farm prices.

Agricultural protection in Sweden has long been criticised. A highly critical study published two years ago by the Paris-based Organisation for Economic Co-operation and Development claimed that the objective of maintaining a high level of agricultural production had imposed costs on the economy that had slowed growth.

More recently, it pointed out that the price differential between Sweden and other developed countries had worsened. Over the past 10 years, there has been a 116 per cent rise in Swedish food prices compared with an average 81 per cent increase in western Europe as a whole.

Strangely, in a country whose people are highly organised, there has never been a vocal consumer movement with power to argue the case for cheap food and free trade. Instead the farmers have managed to exercise great influence over the political system, particularly through their connections with the small Centre party.

The main problem is that existing price controls have led to the accumulation of expensive surpluses – estimated in cereals, for example, at around 1m tonnes. Exporting the surplus has had to be subsidised by the Swedish taxpayer to ensure competitive prices.

In recent years, the Swedish Government has calculated that the subsidies have cost from Skr2.5bn-Skr3bn ($410m-$492m) a year.

The government wants to adjust the system so that agricultural production is limited to meeting Swedish domestic needs, plus an amount that can be exported abroad without financial loss. If this were done, it has been estimated, at least 500,000 hectares of existing farm land would no longer be needed for food production.

It has also been calculated that grain prices would fall by 20 per cent, beef by 9 per cent, pork by 5 per cent and milk by 3 per cent. On the other hand, there would be a loss of jobs in agriculture.

An estimated 8,000 farmers out of a total of 70,000 would lose their livelihood on the land, with a further cut of 6,000 jobs in food processing, according to the government.

Only about 3 per cent of Swedes work in agriculture, which accounts for around 1.8 per cent of the country's gross domestic product. Only 7 per cent of the land is suitable for either arable farming or pasture. However, such statistics understate the importance of agriculture to Sweden.

Many Swedes have an emotional commitment to the land, even if most live in a highly urbanised society. The industrial revolution arrived late in Sweden and most Swedes continue to maintain quasi-rural roots through ownership of a family cottage.

As recently as 1985, the Swedish parliament continued to endorse an agricultural policy that stressed as its objective the protection of domestic production in peacetime and for possible emergencies. The declared aim has been to provide consumers with access to "food of high quality at reasonable prices." The opposite has been nearer the truth.

Opposition parties, with a keen interest in the preservation of the countryside – like the Centre as well as the Greens and the Communists – temper any favourable view of a change in agricultural policy with a determination to ensure alternative sources of employment are available to those to be hit by structural change.

However, a wider strategy designed to support rural Sweden through a period of structural change does not mean that the forces against deregulation can hope to win a rearguard action to protect the status quo. More radical elements in the ruling Social Democratic Party – particularly the liberal economists at the Ministry of Finance – would like to dismantle completely the whole protectionist system that insulates Swedish agriculture from international markets.

Next Monday's announcement should indicate just how far Mr Hellstrom is prepared to meet the conflicting pressures from various interest groups. Much will depend on how the Swedish Farmers' federation reacts to what he plans.

The Swedish Government sees agricultural reform as an important ingrdient in its wider strategy of making the country more efficient, more competitive and more open to market forces. At the moment, it is also grappling with one of the highest rates of inflation in the western world, a chronic balance of payments deficit and low growth.

It will not be easy, but putting the interests of consumers before those of the producers for once could help alleviate some of Sweden's underlying economic difficulties.

Many Swedes believe the time has come when their agriculture should be treated in the same way as their manufacturing industry and made to stand on its own feet free from red tape and financial support from overburdened taxpayers.

Clearing deal in US futures may set precedent

By Barbara Durr in Chicago

FOR the first time in the US futures industry, an exchange clearing house will contract out for another house to clear its trades. The New York Cotton Exchange's independent clearing house – the Commodity Clearing Corporation – has agreed to contract the clearing house of the Chicago Board of Trade.

Mr Roger Rutz, president of the Board of Trade Clearing House, said: "This may lead to further common processing in the futures industry and make US markets even more efficient than our foreign competitors."

The step is expected to lower clearing costs for the Cotton Exchange, although details of the payments for Chicago's services have not yet been worked out.

Savings will come from the economy of scale at the Board of Trade Clearing Corporation, the industry's largest clearing house. It processes normally up to 700,000 contracts daily and the Cotton Exchange's comparatively low daily volume of some 20,000 or so, will not stretch its capacity, Mr Rutz said.

The Board of Trade Clearing Corp already provides some other services to the industry, such as risk analysis and it serves as the processing agent for the inter-market information sharing system established shortly after the crash in 1987.

WORLD COMMODITIES PRICES

MARKET REPORT

COPPER prices retreated on the LME – volatile trading in the morning saw three-month metal trade down to £1,517 a tonne, the lowest level since early March, on general liquidation and some short selling in expectation of an early end to the strike at Southern Peru Copper. Market talk also suggested that recent high premiums are expected to attract fresh metal to LME warehouses, where stocks have halved since the start of the year to 54,575 tonnes. The fall continued on Comex, and steepened just before midsession on news that the 27-day-old strike at Peru's Tintaya mine had ended. However, analysts were quick to add that copper was moving on such thin volume that the late-morning slide might have been exaggerated. Lower LME copper contributed to the failure of three-month lead prices to hold above £500 a tonne. On the Baltic Futures Exchange dry cargo freight futures remained in sharp retreat – dealers said earlier optimism that there could be a slight recovery next month had now completely evaporated and May is now trading at a substantial discount to April. In Chicago pork bellies were up by the 2 cent daily limit by midsession.

Compiled from Reuter

London Markets

SPOT MARKETS

Crude oil (per barrel FOB)		+ or -
Dubai	$14.35-4.50x	+.625
Brent Blend	$17.10-7.15x	+.825
W.T.I. (1 pm est)	$18.75-8.78x	+.915
Oil products (NWE prompt delivery per tonne CIF)		+ or -
Premium Gasoline	$214-216	+4
Gas Oil	$160-161	+2½
Heavy Fuel Oil	$76-78	+1
Naphtha	$163-165	+8
Petroleum Argus Estimates		
Other		+ or -
Gold (per troy oz)♣	$376.25	+1.00
Silver (per troy oz)♣	510c	-2
Platinum (per troy oz)	$480.75	+2.25
Palladium (per troy oz)	$128.50	+0.15
Aluminium (free market)	$1515	+15
Copper (US Producer)	124c	
Lead (US Producer)	50c	
Nickel (free market)	400c	
Tin (Kuala Lumpur market)	17.52r	+0.15
Tin (New York)	305c	
Zinc (US Prime Western)	83c	
Cattle (live weight)†	114.33p	-0.96*
Sheep (dead weight)†	244.62p	-7.18*
Pigs (live weight)†	99.40p	-2.46*
London daily sugar (raw)	$367.8	+8.0
London daily sugar (white)	$446.5	+6.0
Tate and Lyle export price	£339.0	+3.5
Barley (English feed)	£107.75	+0.75
Maize (US No. 3 yellow)	£138	
Wheat (US Dark Northern)	£119y	
Rubber (May)♥	55.75p	-0.25
Rubber (Jun)♥	56.25p	-0.25
Rubber (KL RSS No 1 May)	228.5m	
Coconut oil (Philippines)§	$342.5z	-2.5
Palm Oil (Malaysian)§	$256.0	-2.5
Copra (Philippines)§	$232.5y	
Soyabeans (US)	£184.0	+1.5
Cotton "A" index	82.60c	-0.80
Wooltops (64s Super)	562p	

£ a tonne unless otherwise stated. p-pence/kg. c-cents/lb. r-ringgit/kg. x-Jun. t-May/Jun. u-Aug. v-Apr/Jun. w-Apr/May. z-Jun/Jul y-May. †Meat Commission average fatstock prices. * change from a week ago. ♥London physical market. §CIF Rotterdam. ♣ Bullion market close. m-Malaysian cents/kg.

SUGAR – London FOX ($ per tonne)

Raw	Close	Previous	High/Low
May	335.80	341.20	341.00 334.60
Aug	343.80	348.80	348.60 343.00
Oct	337.60	342.40	342.40 337.00
Dec	334.00	336.60	330.00
Mar	314.40	317.00	317.00 313.40
May	312.80	315.20	315.00 312.00
Aug	312.60		315.00 312.00
White	**Close**	**Previous**	**High/Low**
Aug	438.5	441.5	440.5 433.5
Oct	410.0	413.0	412.0 409.5
Dec	398.0		397.0
Mar	394.0	397.5	396.6 391.5

Turnover: Raw 4187 (6445)lots of 50 tonnes. White 374 (1141)
Paris- White (FFr per tonne): Aug 2477, Oct 2330, Dec 2253, Mar 2248, May 2238

CRUDE OIL – IPE $/barrel

	Latest	Previous	High/Low
Jun	17.19	16.40	17.28 16.54
Jul	17.54	16.79	17.54 17.00
Aug	17.65	17.20	17.65 17.36
Sep	17.72	17.63	17.72 17.70
IPE Index	18.45	16.89	

Turnover: 7813 (3555)

GAS OIL – IPE $/tonne

	Latest	Previous	High/Low
May	156.50	153.25	157.25 155.00
Jun	152.25	148.25	153.00 149.75
Jul	152.25	148.50	152.75 150.00
Aug	154.25	150.50	154.50 151.75
Sep	155.25	153.50	155.50 153.00
Oct	157.00	154.75	157.00 154.00
Nov	158.50	157.75	158.50 156.50
Dec	158.50	157.00	159.00 156.50
Jan	156.50	157.00	158.00 156.50

Turnover 10474 (6481)lots of 100 tonnes

FRUIT & VEGETABLES
Bananas are still excellent value at 50-65p a lb (50-65p), reports the FFVIB. Grapefruit at 10-25p each (10-25p), lemons at 8-18p (8-18p) and oranges 8-20p each (8-20p) also remain good value. English Bramley apples are a good buy at 28-42p a lb (28-42p), as are New Zealand Cox's at 50-65p (50-65p). Strawberrys are a star buy at 60-70p a half lb. (70-80p). Cabbage is abundant with French Hispi and English at 18-45p a lb (18-45p). Parsnips at 25-40p a lb (25-40p) and potatoes at 11-20p (10-18p) are also a good buy. Celery at 40-65p a head (40-65p) is still excellent value as are cucumbers at 45-72p each.

COCOA – London FOX £/tonne

	Close	Previous	High/Low
May	868	852	870 845
Jul	879	869	887 868
Sep	895	887	904 887
Dec	911	905	921 907
Mar	929	922	938 921
May	943	935	954 934
Jul	960	950	967 950

Turnover: 12333 (9501) lots of 10 tonnes
ICCO indicator prices (SDRs per tonne). Daily price for Apr 18 1048.59 (1037.22) 10 day average for Apr 19 1028.97 (1021.21)

COFFEE – London FOX £/tonne

	Close	Previous	High/Low
May	677	687	677 664
Jul	679	688	682 668
Sep	689	699	692 677
Nov	699	713	704 691
Jan	711	723	720 706
Mar	725	739	733 720
May	739	757	734

turnover: 4447 (3479) lots of 5 tonnes
ICO indicator prices (US cents per pound) for Apr 18: Comp. daily 74.17 (76.38). 15 day average 75.38 (75.21)

POTATOES – BFE £/tonne

	Close	Previous	High/Low
May	219.5	217.5	222.5 211.0
Apr	150.0	150.0	151.0 149.0

Turnover 408 (344) lots of 40 tonnes.

SOYABEAN MEAL – BFE £/tonne

	Close	Previous	High/Low
Aug	126.00	126.50	126.00
Oct	129.00	123.50	129.00

Turnover 20 (35) lots of 20 tonnes.

FREIGHT FUTURES – BFE $10/index point

	Close	Previous	High/Low
Apr	1400	1416	1405 1400
May	1355	1396	1360 1352
Jul	1210	1249	1235 1206
Oct	1305	1345	1326 1305
Jan	1320	1368	1350 1336
Jul	1183		1175
BFI	1436	1444	

Turnover 345 (250)

GRAINS – BFE £/tonne

Wheat	Close	Previous	High/Low
May	114.60	114.70	114.80 114.60
Jun	116.80	116.90	117.00 116.60
Sep	107.35		107.40
Nov	110.90	111.20	111.00
Barley	**Close**	**Previous**	**High/Low**
May	103.65	103.30	103.50 102.80
Sep	105.70		105.60
Nov	109.60	109.50	109.70

Turnover: Wheat 179 (201). Barley 31 (21).
Turnover lots of 100 tonnes.

PIGS – BFE (Cash Settlement) p/kg

	Close	Previous	High/Low
Apr	124.5	125.0	
Jun	123.0	122.8	122.5
Aug	116.5		116.0
Nov	118.5	118.5	118.0

Turnover 33 (40) lots of 3,250 kg

LONDON METAL EXCHANGE (Prices supplied by Amalgamated Metal Trading)

	Close	Previous	High/Low	AM Official	Kerb close	Open Interest
Aluminium, 99.7% purity ($ per tonne)						Ring turnover 15,850 tonne
Cash	1522-4	1501-3		1518-20		
3 months	1534-5	1516-8	1540/1525	1533-4	1532-5	41,431 lots
Copper, Grade A (£ per tonne)						Ring turnover 61,575 tonne
Cash	1613-5	1639-40	1617/1610	1617-8		
3 months	1527-8	1552-3	1528/1517	1522-3	1528-9	72,341 lots
Lead (£ per tonne)						Ring turnover 4,425 tonne
Cash	502-4	517-8	506/505	504-5		
3 months	493-4	502-3	500/488	489-90	492-3	10,514 lots
Nickel ($ per tonne)						Ring turnover 1,674 tonne
Cash	8650-700	8650-60	8660/8625	8625-50		
3 months	8460-500	8490-500	8500/8400	8500-25	8490-500	7,272 lots
Tin ($ per tonne)						Ring turnover 1,180 tonne
Cash	6540-60	6520-30		6560-70		
3 months	6650-60	6625-30	6670/6645	6660-5	6635-60	6,408 lots
Zinc, Special High Grade ($ per tonne)						Ring turnover 9,000 tonne
Cash	1625-30	1641-2	1632/1625	1623-5		
3 months	1578-80	1593-4	1583/1563	1574-5	1574-5	17,431 lots

LME Closing £/$ rate: SPOT: 1.6455 | 3 months: 1.6195 | 6 months: 1.5950 | 9 months: 1.5716

LONDON BULLION MARKET

Gold (fine oz)	$ price	£ equivalent
Close	376-376½	228½-229
Opening	376¾-377¼	229¼-229¾
Morning fix	376.60	228.839
Afternoon fix	375.75	228.376
Day's high	377½-378	
Day's low	375¾-375¾	
Coins	**$ price**	**£ equivalent**
Mapleleaf	387-392	235-238
Britannia	387-392	235-238
US Eagle	387-392	235-238
Angel	387-392	235-238
Krugerrand	376-379	228½-230½
New Sov.	88½-89½	53¾-54¼
Old Sov.	88½-89½	53¾-54¼
Noble Plat	486.00-493.70	295.00-299.65
Silver fix	**p/fine oz**	**US cts equiv**
Spot	309.20	509.10
3 months	320.65	519.65
6 months	333.00	531.35
12 months	356.90	554.00

TRADED OPTIONS

Aluminium (99.7%)	Calls May	Calls July	Puts May	Puts July
Strike price $ tonne				
1450	82	107	2	24
1550	15	50	35	65
1650	1	19	120	132
Copper (Grade A)	**Calls**		**Puts**	
2400	189	148	6	71
2500	108	97	25	118
2600	51	60	66	179
Coffee	**Jul**	**Sep**	**Jul**	**Sep**
650	59	77	31	39
700	35	52	57	64
750	20	36	92	98
Cocoa	**Jul**	**May**	**Jul**	**May**
850	55	65	27	40
900	31	59	53	64
950	17	41	89	96
Brent Crude	**Jun**	**Jul**	**Jun**	**Jul**
1700	43	74	42	
1750	23	51		
1800	12			

New York

GOLD 100 troy oz.; $/troy oz.

	Close	Previous	High/Low	
Apr	377.3	376.1	377.7	376.2
May	378.3	377.3	377.8	377.4
Jun	380.7	379.7	381.4	379.0
Aug	385.5	384.5	386.0	384.2
Oct	390.4	389.4	390.2	390.2
Dec	395.2	394.2	395.0	394.2
Feb	400.2	399.2	399.7	399.7
Apr	405.0	404.0	0	0
Jun	410.2	409.1	0	0

PLATINUM 50 troy oz; $/troy oz.

	Close	Previous	High/Low	
Apr	481.7	477.1	480.5	480.5
Jul	486.7	482.1	487.0	482.8
Oct	492.2	487.6	490.5	490.0
Jan	498.2	493.6	495.4	495.4
Apr	504.3	499.7	0	0
Jul	510.5	505.7	0	0

SILVER 5,000 troy oz; cents/troy oz.

	Close	Previous	High/Low	
Apr	508.7	508.5	0	0
May	507.8	507.8	510.8	507.0
Jun	512.0	512.0	0	0
Jul	516.0	516.1	519.5	515.5
Sep	524.5	524.8	526.0	524.5
Dec	536.4	536.6	538.5	536.5
Jan	540.1	540.3	0	0
Mar	548.1	548.4	550.5	548.5
May	558.3	558.8	0	0
Jul	564.7	565.0	0	0

HIGH GRADE COPPER 25,000 lbs; cents/lbs

	Close	Previous	High/Low	
Apr	120.00	118.70	120.00	118.60
May	116.60	116.20	116.90	114.90
Jun	113.00	112.60	0	0
Jul	110.10	109.70	110.60	108.70
Aug	108.30	107.75	0	0
Sep	106.70	106.00	107.30	105.50
Oct	105.55	104.80	0	0
Nov	104.45	103.70	104.00	104.00
Dec	103.60	102.70	104.00	102.50
Jan	102.75	101.90	0	0

COTTON 50,000; cents/lbs

	Close	Previous	High/Low	
May	73.32	73.07	73.70	72.60
Jul	72.98	72.75	73.15	72.31
Oct	68.22	68.30	68.60	67.90
Dec	65.98	66.15	66.30	65.50
Mar	66.65	66.85	66.90	66.25
May	67.12	67.20	0	0
Jul	66.70	67.15	0	0

CRUDE OIL (Light) 42,000 US galls $/barrel

	Latest	Previous	High/Low	
May	17.85	16.96	18.12	17.28
Jun	18.81	18.09	18.86	18.30
Jul	19.37	18.74	19.53	18.95
Aug	19.70	19.12	19.80	19.25
Sep	19.95	19.46	20.01	19.52
Oct	20.13	19.63	20.25	19.68
Nov	20.07	19.65	20.15	19.70
Dec	20.05	19.67	20.15	19.75
Jan	20.06	19.66	20.10	19.75
Feb	20.06	19.66	20.06	19.75

HEATING OIL 42,000 US galls, cents/US galls

	Latest	Previous	High/Low	
Jun	5115	5015	5165	5065
Jul	5130	5006	5150	5050
Aug	5200	5080	5225	5130
Sep	5363	5234	5380	5270
Oct	5425	5320	5425	5355
Nov	5500	5406	5510	5445
Dec	5595	5493	5605	5515
Jan	5610	5528	5625	5545
Feb	5580	5478	5580	5515

COCOA 10 tonnes;$/tonnes

	Close	Previous	High/Low	
May	1316	1273	1325	1295
Jul	1338	1299	1346	1315
Sep	1353	1314	1360	1333
Dec	1366	1331	1378	1351
Mar	1381	1344	1392	1372
May	1395	1355	1405	1381
Jul	1410	1374	1415	1400
Sep	1430	0	0	0

COFFEE "C" 37,500lbs; cents/lbs

	Close	Previous	High/Low	
May	93.17	92.99	93.90	92.50
Jul	95.83	94.89	96.00	94.65
Sep	97.89	97.00	97.90	96.70
Dec	100.30	199.50	100.60	99.30
Mar	102.38	101.63	101.75	101.50
May	104.50	103.63	105.00	104.00
Jul	107.13	106.25	0	0
Sep	108.50	107.50	0	0

SUGAR WORLD "11" 112,000 lbs; cents/lbs

	Close	Previous	High/Low	
May	15.16	15.40	15.37	15.08
Jul	15.30	15.66	15.56	15.25
Oct	15.15	15.34	15.31	15.07
Mar	14.35	14.42	14.40	14.22
May	14.19	14.24	14.15	14.10
Jul	13.97	14.02	14.00	14.00

ORANGE JUICE 15,000 lbs; cents/lbs

	Close	Previous	High/Low	
May	193.75	194.10	195.00	193.10
Jul	191.90	192.70	193.05	191.60
Sep	187.25	188.10	188.50	187.25
Nov	180.95	181.45	181.00	181.00
Jan	175.65	176.00	176.00	175.30
Mar	175.55	176.05	176.50	175.60
May	175.05	175.55	176.55	175.55
Jul	175.05	175.55	0	0

INDICES

REUTERS (Base: September 18 1931 = 100)

Apr 19	Apr 18	mnth ago	yr ago
1919.1	1921.3	1921.1	2025.2

DOW JONES (Base: Dec. 31 1974 = 100)

	Apr 18	Apr 17	mnth ago	yr ago
Spot	135.31	136.41	133.45	138.11
Futures	133.19	133.76	133.00	138.64

Chicago

SOYABEANS 5,000 bu min; cents/60lb bushel

	Close	Previous	High/Low	
May	600/4	594/2	601/0	594/0
Jul	614/6	608/2	616/0	607/6
Aug	620/0	613/4	620/0	613/2
Sep	619/6	614/6	620/0	614/4
Nov	625/0	621/0	625/4	620/2
Jan	635/2	630/4	635/4	630/4
Mar	645/0	641/4	645/0	641/0
May	653/2	648/4	653/4	648/4

SOYABEAN OIL 60,000 lbs; cents/lb

	Close	Previous	High/Low	
May	22.84	22.71	22.90	22.58
Jul	23.03	22.87	23.09	22.73
Aug	22.95	22.76	23.02	22.70
Sep	22.72	22.51	22.80	22.50
Oct	22.62	22.25	22.60	22.25
Dec	22.32	22.03	22.35	21.98
Jan	22.20	21.85	22.20	21.90
Mar	22.10	21.80	22.10	21.80

SOYABEAN MEAL 100 tons; $/ton

	Close	Previous	High/Low	
May	172.7	171.0	173.8	171.0
Jul	177.1	175.8	177.9	175.6
Aug	178.8	178.2	179.8	177.8
Sep	180.8	180.0	181.7	179.8
Oct	182.1	182.0	183.2	181.3
Dec	185.9	186.1	186.8	184.8
Jan	187.7	187.8	188.5	187.0
Mar	191.5	192.5	191.6	190.5

MAIZE 5,000 bu min; cents/56lb bushel

	Close	Previous	High/Low	
May	277/0	273/6	277/4	272/6
Jul	279/0	275/2	279/0	274/2
Sep	272/6	269/6	272/6	268/6
Dec	268/2	265/6	268/6	264/6
Mar	274/0	271/2	274/2	270/2
May	276/4	273/6	277/0	273/6
Jul	279/0	276/2	279/0	276/0

WHEAT 5,000 bu min; cents/60lb-bushel

	Close	Previous	High/Low	
May	369/0	366/2	370/4	363/4
Jul	342/4	341/2	343/0	339/6
Sep	348/4	347/0	348/6	345/4
Dec	360/6	359/6	361/0	357/6
Mar	365/4	364/6	365/4	363/4
Mar	370/0	370/0	370/4	369/4

LIVE CATTLE 40,000 lbs; cents/lbs

	Close	Previous	High/Low	
Apr	79.82	79.87	80.05	79.70
Jun	73.57	73.47	73.70	73.15
Aug	72.57	72.57	72.90	72.35
Oct	74.02	73.95	74.12	73.80
Dec	74.20	74.05	74.25	74.00
Feb	74.12	74.10	74.35	74.10
Apr	74.42	74.37	74.50	74.30

LIVE HOGS 30,000 lb; cents/lbs

	Close	Previous	High/Low	
Apr	57.47	56.80	57.50	56.75
Jun	61.12	60.37	61.67	60.30
Jul	60.62	59.85	61.22	59.90
Aug	58.60	58.00	59.05	57.97
Oct	52.47	52.32	52.80	52.35
Dec	51.55	51.35	51.80	51.40
Feb	50.50	50.47	50.60	50.20
Apr	47.15	47.10	47.35	47.05

PORK BELLIES 40,000 lbs; cents/lb

	Close	Previous	High/Low	
May	61.42	59.42	61.42	59.50
Jul	61.72	59.72	61.72	59.75
Aug	60.47	58.47	60.47	58.60
Feb	59.67	58.77	60.20	58.45
Mar	59.55	58.70	60.17	59.30
May	59.70	58.70	59.80	59.00

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LONDON STOCK EXCHANGE

Gloomy session but no heavy selling

THE UK stock market took another turn for the worse yesterday as the overnight setback on Wall Street supplied the final bearish pressure on an already depressed equity sector, and clearly outweighed any benefit from the firmer tone in Tokyo. The important chart sensitive FT-SE 2,200 mark was abandoned in early trading, and an uncertain opening on Wall Street cut the ground from any attempts to rally in London.

The Footsie Index lost 21 points on the day, or around one per cent, although selling pressure was light - indeed, market volume remained unimpressive until the final hour when New York influences helped push Seaq volume to 491.9m shares, well above recent levels.

Account Dealing Dates		
*First Dealings:		
Apr 9	Apr 30	May 10
Option Declarations:		
Apr 26	May 10	May 24
Last Dealings:		
Apr 27	May 11	May 25
Account Day:		
May 8	May 21	Jun 4

*New time dealings may take place from 8.00 am two business days earlier.

The final reading showed the FT-SE Index at 2,184.7, down 21.2, after touching a day's low of 2,180.5 at mid-session. The loss, which was mostly suffered in the first half of the session, left the market looking cautious rather than shaken. Some strategists believed that the investment institutions will be buyers of UK equities at the new levels. Although there was little sign of this yesterday, several leading securities houses claimed that their day's business had been tilted towards the buy side.

In late deals, London was closely influenced by Wall Street and particularly by the US bond market. If London continues to fall, then the chart analysts claim that there will be little support above FT-SE 2,170.

Although the New York market provided the immediate downward pressure yesterday morning, when the Footsie dipped to 2,192 within the first hour, the London market was also reacting to the flow of worrying corporate news and economic data over the past fortnight. Also driving equities lower were the sharp falls in UK Government bonds in early trading, although these were reduced later. The equity sector paid little heed to the disclosure of a UK Public Sector Borrowing Requirement of £1.6bn in March, slightly lower than expected.

In view of the market's concern this week as it slid towards the Footsie 2,200 mark, yesterday's session was surprisingly apathetic. Traders described market volume as "terrible" for most of the day. Some resorted to technical arguments, suggesting that marketmakers had wanted the market lower in order to pick up stock cheaply.

The next hurdle for domestic equities is likely to be the UK monthly trade figures for March, due next week. The international scene remains threatening, with the possibility of higher interest rates on the other side of the Atlantic causing concern in UK markets, where any upwards move in rates would threaten a precarious economic and political outlook.

Spotlight turns on Globe

THE WORLD'S largest investment trust, Globe, was the centre of considerable speculation yesterday. For some time the market has been dogged by rumours that an FT-SE index constituent would fall to a predator, and late in the session the spotlight turned to Globe which gained 2¼, against the market trend, to close at 174¼p.

Increased buying of the shares on both UK and European account alerted traders to the possibility of a bid for Globe, which is now highly liquid following the sale of its Electra stake. "A pile of money and assets is sitting there at a discount of around 15 per cent discount (to the share price)," said one dealer.

Two potential purchasers were named, one being the Coal Board pension funds, which have a history of dealing well in the sector, having successfully taken out Drayton Premier and TR Industrial & General in recent years. The Coal Board already has a 29 per cent holding in Globe. The other possible buyer was said to be an Australian investment concern.

An analyst said Globe must be an attractive proposition given the current scenario, but questioned whether an institutional investor would be prepared to pay out £1bn with the market now below the Footsie 2,200 mark.

Commenting on the British Coal rumours, Mr David Hardy, Globe's chairman, said: "I do not believe there is any credence in this Coal Board story. I was with them today and this was never mentioned."

Asda depressed

Asda, the supermarkets group, was depressed as talk of distribution problems and poor trading drove it below the psychologically important £1 share price level, a point last breached in 1983.

The company vigorously denied the speculation. A spokesman described the talk of distribution problems as "an old sausage." Trading difficulties were also dismissed. "Asda had a very good Easter," he said.

Turnover was an unusually high 11m shares as several lines of stock overhanging the market were cleared. Bargain hunters stepped in at lower levels but failed to halt the retreat.

Also weakening the shares were suggestions that UBS Phillips & Drew had been talking Asda lower. UBS denied this, although Mr John Smith, an analyst at UBS, said the house remained long-term bears of the stock.

Mr Smith drew attention to the impact of high interest rates and sluggish consumer spending on Asda's non-food interests. "No other food retailer has such a high exposure to non-food items in their sales mix," he said.

Asda, which closed 6 lower at 94p, now stands 35 per cent below its year-ago level and 55 per cent under the high of last September. This compares with the FT-SE 100 index, which has risen 5.3 per cent and fallen 4.6 per cent respectively over the same time periods.

Coloroll weak

A press report that Coloroll, the troubled home products group, was hoping to raise about £75m exerted fresh pressure on the shares and they fell to a lowest ever price of 11½p before steadying to close a net 2 down at 12¼p.

The newspaper article suggested that the group, once headed by Mr John Ashcroft, was considering various solutions to reduce debt and save itself from receivership. But Mr Kenneth Marks, the new chairman, said the favoured option was a "conventional rights issue".

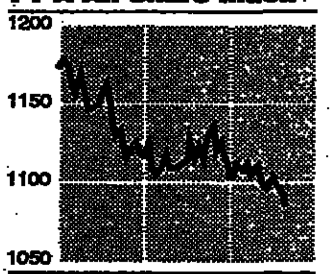
He has presented his assessment of the group's financial position to merchant bank S.G. Warburg, which is finalising proposals for a restructuring plan to recapitalise Coloroll. Warburg intends to visit Coloroll's banks and institutional investors during the coming weeks to sound out support for the plan.

Bass lower

The feature among brewery issues was Bass after a US-based securities house advised investors to switch out of the stock. The shares gave up 12 to 923p, although a meagre 478,000 were traded.

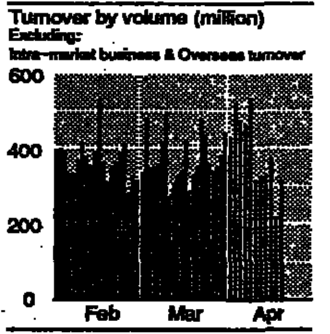
Mr John Wakely and Mr Chris Wickham, brewery analysts at Shearson Lehman Hutton, advised switching out of Bass and into Grand Metropolitan, citing problems concerning Bass's $2.bn acquisition of the Holiday Inns chain in the US, completed earlier this year.

FT-A All-Share Index



Equity Shares Traded

Turnover by volume (million)
Excluding:
Intra-market business & Overseas turnover



They said: "Our information is that rates are not increasing in US hotels and if anything are getting worse, and that room occupancy is flat to down. In the light of the high price paid for Holiday Inns, this could create further negative sentiment."

Bass are, however, not totally out of favour and are among brewery stocks which County NatWest is urging investors to buy. Mr Neil Junor at County believes brewery stocks currently represented "good value," and expects Bass to sell its Crest Hotel chain before May's interim results for a figure in excess of £350m.

Among pharmaceuticals, Glaxo closed 3 up at 785p following a somewhat erratic trading course. After drifting easier with the rest of the international sector, the shares picked up at the close on US buying, apparently reflecting belief that the price has yet to do full justice to the prospects for BCH 189, the anti-Aids drug venture with IAF Biochem of Canada.

SmithKline Beecham suffered from its links with the US, slipping 17 to 479p, and Wellcome (669p) and Fisons (340p) were easier.

Reuters, a particularly Wall Street orientated stock, shed only 9 of the recent strong gain to close at 1148p.

A bullish note by Hoare Govett on the water stocks helped the sector stabilise after its recent poor showing against the rest of the market.

Mr Nigel Hawkins, Hoare's water analyst, said the sector had fallen by 15 per cent on a partly-paid basis since February 1, compared with a 6 per cent fall in the All-Share Index over the same period, with political factors the central reason for the decline. Mr Hawkins added that the market had "overreacted to these developments; we predict a bounce in coming weeks." It is, he said, far too premature to write off a Conservative Party revival.

The water sector, according to Mr Hawkins, offers fundamental defensive attractions: recession proof earnings, which should grow at an average compound rate of at least 10 per cent a year; and dividend growth which should be around 4 per cent in real terms. The sector trades at a current year multiple of 5.6 times – a discount to the market of 46 per cent – and offers a prospective yield of 8 per cent compared with the market average of 5.5 per cent.

Hoare said Anglian and Wessex are "noticeably unnderrated by the market" and Thames' asset base "is also attractive." Anglian moved up 3 to 146p on 1.3m shares, as did Wessex, to 145p on 530,000. Northumbrian rose 4 to 163p, South West 5 to 157p and the Water Package 13 to £1413.

The banks remained an extremely volatile area of the market, with share prices losing further ground before steadying in what was described as heavy two-way trading. One dealer said that the sector "has been bashed about but seems to have reached a level where there are strong buyers."

The shares have been badly affected by worries over their exposure to the British & Commonwealth/Atlantic Computers affair. Of the "big four" the heaviest turnover, 5m shares, was in Lloyds, off 2 at 259p. Barclays lost 6 to 544p, after 540p, on 3.3m, while NatWest gave up 7 to 327p and Midland 3 to 315p. Standard Chartered fell 12 to 515p.

Royal Insurance drifted back 4 to 451p after the statement by the chairman at the annual meeting, which said the company expected losses from the January/February storms to total around £100m, but that this figure would be minimised by reinsurance cover. Royal's first-quarter figures are scheduled for May 17.

T&N closed 5 firmer at 159p, with dealers taking the view that the recent rights issue would not overhang the shares.

STC, the electronics group, were persistently bought throughout a session during which 2.8m shares changed hands, well up on usual levels in the stock. There was revived talk that a deal with another big electronics group could be about to take place, with Japan's Fujitsu said to be favourite to take a stake of around 20 per cent in ICL, STC's computer subsidiary.

"The stories have been around for some time but seem to be coming to a head," noted one specialist. STC is scheduled to hold a presentation in London on May 3 at which it is expected to launch its new "top-of-the-range" computer.

EuroTunnel lost 18 to 565p as refinancing worries remained.

Albert Fisher, the food retailer, held steady against a falling market following stronger than expected interim results. The £30.5m rise in profits compared with £19.9m at the same stage last year and was above most analysts' forecasts. "These are very good results," said Mr Bill Myers of Henderson Crosthwaite. "Albert Fisher is a fabulous story." Fisher shares were unchanged at 118p.

William Low were unaltered at 314p, supported by a slightly higher than expected 26 per cent rise in interim profits.

Firmer crude oil prices failed to give much of a lift to oil and gas stocks, although they generally outperformed the rest of the market. Crude prices were boosted by news that OPEC had postponed the meeting scheduled for May 25 until June 25, and scheduled an emergency meeting for May 2.

BP were only 2 off at 315p on good turnover of 6.2m, while Shell settled 4 down at 447p on 3.3m. Ultramar dropped to 338p before institutional support triggered a rally to leave the shares a net 8 down at 340p.

Burmah lost 11 to 608p despite dubious market suggestions of a bid for the company.

Midland & Scottish Resources, in which British & Commonwealth holds a 6.1 per cent stake, ran back 23 to 173p after the company announced a £150m rights offer to help finance the acquisition of Tortin Investments, a Guernsey-based group involved in the building in Italy of a floating oil rig with the world's biggest production capability.

Shares in Speyhawk, the property company, fell steeply to 164p before rallying to 169p, a net fall of 32. The company said it was aware of no reason for the movement in its shares and emphasised that it "does not need, nor has any intention of raising fresh capital."

Rockfort Group, the property development company, fell 7 to 25p following a sharp fall in its final results to £3.1m from £8.8m last time.

Carlton Communications, bedevilled by rumours on Wednesday, staged a tentative rally, closing 2 firmer at 483p on 2.6m. Behind the steadier trend were equally vague hints that Havas, the French media group, could be running the slide rule over Carlton.

Allied Lyons closed 6 up at 432p on turnover of 1.5m shares after announcing the sale of its Embassy Hotels chain for £202m.

Guinness firmed 2 to 654p on the back of a profits upgrading from Flemings. The latter now expects 1990 profits of £825m (against £810m) and 1991 profits of £983m (£930m).

Mr Philip Shaw at Flemings said that following a recent visit to LVMH, the French company in which Guinness holds a 24 per cent stake, we found "the company to be trading strongly. Also, the trend in operating margins within Guinness's spirits division continues upwards." County NatWest also showed a keen interest in the Guinness shares. Some 1.7m had been traded by the market close.

Grand Metropolitan continued to be a good market, the shares hardening 5 to 584p.

■ Other Market statistics, including the FT-Actuaries share index, Page 30

NEW HIGHS AND LOWS FOR 1990

NEW HIGHS (13).
CHEMICALS (1) ELECTRICALS (2) INDUSTRIALS (5) AGA, Jardine Hldgs., Jardine Strategic, Kleen-E-Ze, Swire Pacific, NEWSPAPERS (1) PAPERS (2) TRUSTS (1) THIRD MARKET (1).
NEW LOWS (333).
BRITISH FUNDS (44) INT.BANK & O'SEAS GOVT. STLG. ISSUES (4) FOREIGN BONDS (1) AMERICANS (2) CANADIANS (5) BANKS (13) BREWERS (5) BUILDINGS (16) CHEMICALS (8) STORES (16) ELECTRICALS (15) ENGINEERING (9) FOODS (8) HOTELS (2) INDUSTRIALS (58) Alumasc, Arley, Aukett Assocs., Bardon, Barrett (H.), Baxter Intl., Brammer, Brandon Hire, Bridport-Gundry, Brit. Bloodstock, Brit. Vita, Brompton, CH Inds., Cape, Celestion, Co. of Designers, Coloroll, Cookson, Courtaulds, De La Rue, Dyson (J & J), EIS, Eleco, Erskine Hse, Excalibur, Gleves, Granada, Do. 7½pc net Cv., Grovewood, Hadleigh Inds., Hepworth, Lincat, MB, MITIE, Macfarlane, Mayflower, Mosaic Invs., Norton, Nu-Swift, Novo Inds "B", Office & Elect., Parkfield, Porth, Rank Org., Ropner, SAC Intl., Scott Robertson, Shaw (A.), SmithKline Beecham A, SmithKline Beecham Eq. Units, Stocklake, Stonngard, Tamaris, Tribble Harris, Whitecroft, Willaire Cv. Rd. Pf., Witshaw, YRM, INSURANCE (5) LEISURE (15) MOTORS (4) NEWSPAPERS (2) PAPERS (8) PROPERTY (16) TEXTILES (8) TOBACCOS (2) TRANSPORT (2) TRUSTS (37) WATER (3) OILS (10) OVERSEAS TRADERS (2) PLANTATIONS (1) MINES (13) THIRD MARKET (1).

FINANCIAL TIMES STOCK INDICES

	April 19	April 18	April 17	April 12	April 11	Year Ago	1990 High	1990 Low	Since Compilation High	Since Compilation Low
Government Secs	75.53	75.56	75.88	76.31	76.70	86.16	84.20 (2/1)	75.53 (19/4)	127.4 (9/1/35)	49.18 (3/1/75)
Fixed Interest	85.50	85.55	85.69	85.85	85.76	97.22	92.91 (8/1)	85.12 (23/3)	105.4 (28/11/47)	50.53 (3/1/75)
Ordinary Share	1712.2	1732.6	1738.3	1741.0	1733.3	1698.5	1968.3 (3/1)	1712.2 (19/4)	2008.6 (5/9/89)	49.4 (26/6/40)
Gold Mines	248.7	248.0	250.6	248.8	249.0	185.8	378.5 (6/2)	248.0 (18/4)	734.7 (15/2/83)	43.5 (26/10/71)
FT-SE 100 Share	2184.7	2205.9	2214.5	2222.1	2215.5	2064.4	2463.7 (3/1)	2184.7 (19/4)	2463.7 (3/1/90)	986.9 (23/7/84)
Ord. Div. Yield	5.19	5.15♣	5.15	5.13	5.16	4.58				
Earning Yld %(full)	12.03	11.91♣	11.90	11.86	11.93	11.11				
P/E Ratio(Net)(☆)	10.10	10.20	10.21	10.24	10.19	10.86				
SEAQ Bargns 4.45pm	20,568	19,557	19,214	19,596	18,961	28,214				
Equity Turnover(£m)†	-	588.84	435.98	758.62♣	602.91♣	1348.41				
Equity Bargains†	-	19,178	13,029	18,998♣	19,286	30,998				
Shares Traded (ml)†	-	311.5	216.9	307.5♣	332.6	503.8				

Basis 100 Govt. Secs 15/10/26, Fixed Int. 1928, Ordinary 1/7/35, Gold mines 12/9/55. Basis 1000 FT-SE 100 31/12/83. ☆ Nil 10.00

Ordinary Share Index, Hourly changes — Day's High 1722.8 — Day's Low 1711.9

Open	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm
1721.3	1719.1	1722.5	1718.2	1717.0	1717.8	1712.6	1713.7	1716.1

FT-SE, Hourly changes — Day's High 2194.9 — Day's Low 2180.5

Open	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm
2192.8	2192.1	2194.0	2188.0	2187.3	2188.0	2181.4	2184.1	2187.1

GILT EDGED ACTIVITY

Indices*	April 18	April 17
Gilt Edged Bargains	78.6	71.6
5 - Day average	68.6	68.4

*SE Activity 1974. †Excluding intra-market business & Overseas turnover. Calculation of the FT indices of daily Equity Bargains and Equity Value and of the five-day averages of Equity Bargains and Equity Value, was discontinued on July 31. Closing values for July 28 available on request.
London report and latest Share index. Tel 0898 123001. ♣Corrected figures.

TRADING VOLUME IN MAJOR STOCKS

Stock	Volume 000's	Closing Price	Day's change	Stock	Volume 000's	Closing Price	Day's change	Stock	Volume 000's	Closing Price	Day's change	Stock	Volume 000's	Closing Price	Day's change
ADT	1,100	184	-1	Cookson	1,400	182		MB Group	437	195	-1	Scobo	40	480	+1
ASDA Group	11,000	94	-6	Courtaulds	677	300	-8	MEPC	351	503	-8	Slough Ests	386	267	-4
Abbey National	6,500	187	-3	Dalgety	49	363	-3	Manpower	325	61½	-1½	Smith (W.H.) A	112	287	-2
Allied-Lyons	1,500	432	+6	Dixons	616	116	-1	Marks & Spencer	3,300	193	-2	Smith & Nephew	1,400	123	-½
Amstrad	1,600	75	-2	ECC Group	343	384	-8	Maxwell Comm.	310	189	-5	SmKl Beecham	1,800	479	-17
Anglian Water	1,300	146	+3	Enterprise Oil	147	593	-7	Mecca Leisure	2,000	67	-2	SmKl Beecham Units	62	2193	-100
Argos	3,600	201	-2½	FKI	1,200	89	-1	Midland Bank	783	315	-3	Smiths Inds	3,000	230	-1
Argyll Group	579	209		Ferranti	4,700	43½	+½	NatWest Bank	1,500	327	-7	South West Water	940	157	+5
Ass. Brit. Foods	68	386	-2	Fisons	735	340	-1	Next	2,600	72	-1½	Southern Water	1,300	130	-½
BAA	2,400	360	+1	Gen Accident	294	1000	-1	North West Water	1,900	141		Standard Chartd	305	515	-12
BAT Inds	1,900	720	-3	General Elect.	3,100	195	-½	Northern Foods	413	297		Storehouse	1,300	114	-1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
British Gas	3,100	205½	-2½	Hillsdown	2,500	239	-1	Reed Intl	1,300	385	-4	Unigate	409	283	-2
British Land	167	369		IMI	1,600	225	-5	Reuters	322	1148	-8	Unilever	857	647	-4
BP	6,200	315	-2	ICI	1,000	1075	-8	Rolls Royce	988	185	-2	United Biscuits	2,200	317	-3
British Steel	5,900	140½	-2½	Inchcape	982	252	-4	Rothmans	476	639		Utd. Newspapers	38	343	-2
British Telecom	1,600	261	-4½	Kingfisher	1,000	293	-1	Ryl Bk Scotland	641	175		Water Package Uts.	6	£1413	+13
Bunzl	1,200	85	-4	Ladbroke	859	286	-6	Royal Insurance	584	448	-8	Wellcome	296	669	-7
Burmah Oil	363	608	-11	Land Securities	434	485	-6	STC	2,800	261	+4	Welsh Water	258	162	-1
Burton	666	158	-2	Laporte	47	517	-5	Saatchi	749	112	-2	Wessex Water	530	145	+3
Cable & Wire	1,500	506	-8	Legal & General	435	360		Sainsbury	2,700	262	+1	Whitbread "A"	571	372	+1
Cadburys	429	323	-6	Lloyds Abbey	120	301	-1	Scottish & New	2,400	268	+2	Williams Hldgs	1,800	260	-3
Calor Group	90	258	-6	Lloyds Bank	5,000	259	-2	Sears	2,300	88	-1½	Willis Faber	285	275	+3
Carlton Comms.	2,600	483	+2	LASMO	643	581	+2	Sedgwick	305	249		Wimpey	801	229	-8
Coats Viyella	3,700	111	-4	Lonrho	780	257	-2	Severn Trent Water	1,000	132	+1½	Yorkshire Water	274	152	-2
Comm. Union	959	459	-4	Lucas	288	602	-3	Shell Transport	3,300	447	-4				

Based on trading volume for most Alpha securities dealt through the SEAQ system yesterday until 4.30pm

APPOINTMENTS

Chairman of Town & Country

Mr T.S. Mallinson, joint deputy chairman of TOWN & COUNTRY BUILDING SOCIETY, has been appointed chairman following the retirement of Mr R.L.A. Woolgar. Mr Mallinson is chairman of Lydney Products. Mr F.W. Vaughan Dale has retired from the board.

■ NATIONAL POWER, the largest generating company in the UK, has appointed Mr Paul Heward as director of investor relations, and Mr Colin Masterson as director of financial control. Mr Heward has been director of investor relations for the Argyll Group since 1985, and Mr Masterson has been financial director of Savills since 1986. National Power is expected to be floated next February.

■ BRITISH GAS has appointed Mr David Hider as director of domestic marketing; and Mr Colin Playle as director of industrial and commercial marketing. Mr Hider has been in the industry since 1967 and Mr Playle since 1957.

■ Mr William C. Baskerville retires as chairman of ROBSON COTTERELL, stockbrokers, Bournemouth, on May 25. He will be succeeded by Mr Maurice H. Oldfield, deputy chairman. Mr W.L.J. Lowe becomes director of a new branch in Eastbourne on May 1. He joins from Henderson Crosthwaite Institutional Brokers.

■ ACORN COMPUTER GROUP has appointed Mr Lorne Byatt, company solicitor, additionally as company secretary, succeeding Mr Sam Wauchope who becomes group managing director.

■ A. MONK BUILDING AND CIVIL ENGINEERING, part of Davy Corporation, has appointed the following divisional managing directors: Mr Alan Gunner, southern; Mr Alan Tweddle, northern; Mr Tim Redman, business development; and Mr Terry Burdett, Davy Monk Projects.

■ THE PRODUCT CONNECTION (UK), Reading, which markets snack foods and confectionery, has appointed Ms Brenda Scott as financial director/company secretary. She was financial director of Mendip Foods.

■ THE WELSH DEVELOPMENT AGENCY has appointed Mr Meirion Thomas as executive director of its business services division, a department recently set up to boost small- and medium-sized companies in Wales. The agency has also appointed as regional directors Mr Mike Shukman, South Wales valleys, Mr Huw Thomas, West Wales, and Mr David Russ, South Wales West.

MERCURY PERSONAL COMMUNICATIONS has appointed Mr David Harding *(above)* as quality director of the mobile telephone network consortium. He was total quality management co-ordinator at Jaguar Cars.

■ Mr Peter Armitage has been appointed non-executive deputy chairman of ASSOCIATED PAPER INDUSTRIES.

■ Mr C.A. Turpin, managing director of Hatori-Marshall Co. Tokyo, has been appointed a director of M.W. MARSHALL & CO from May 1.

■ G.F. LOVELL has appointed Mr Humphrey Wood as a non-executive director. He was a managing director of Consolidated Gold Fields, with responsibility for ARC building materials. He is a non-executive director of Birse Group.

■ Mr Richard Vincent has been appointed managing director of the UK subsidiary of THE EUROPEAN SOFTWARE CO, itself a subsidiary of Boole & Babbage. He was vice president of marketing and international sales for XA Systems Corp, US.

■ LEP GROUP has appointed Mr Philip Hampton as a non-executive director. He is director of finance at British Steel.

GREVOR has appointed Mr Mark Wellesley-Wood *(above)* as chief executive. He joins from Kleinwort Benson Securities, where he was director responsible for international mining.

LONDON SHARE SERVICE

BRITISH FUNDS

1990 High	1990 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
"Shorts" (Lives up to Five Years)						
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Five to Fifteen Years						
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Over Fifteen Years						
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Undated						
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BRITISH FUNDS—Contd

1990 High	1990 Low	Stock	Price £	+ or –	Yield Int.	Yield Red.
Index-Linked					(1)	(2)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

INT. BANK AND O'SEAS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CORPORATION LOANS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

COMMONWEALTH & AFRICAN LOANS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

LOANS

Building Societies

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Public Board and Ind.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FOREIGN BONDS & RAILS

1990 High	1990 Low	Stock	Price £	+ or –	Div %	Red. Yield
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AMERICANS

1990 High	1990 Low	Stock	Price £	+ or –	Div Gross	C'vr	Y'ld Gr's
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AMERICANS—Contd

1990 High	1990 Low	Stock	Price £	+ or –	Div Gross	C'vr	Y'ld Gr's
21⅞	15½	Chase Manhattan $12½	16⅝	-⅛	$2.36	-	8.5
19¼	14	Chem. Banking Corpn	14⅝	-¼	$2.72	-	11.2
12½	9⅜	Chrysler $6¼	10⅛	-⅛	$1.20	-	7.2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CANADIANS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Continued on next page

LONDON SHARE SERVICE

BANKS, HP & LEASING

1990 High	Low	Stock	Price	+ or −	Div Net	C'vr	Y'ld Gr's	P/E
303	235	ANZ SAI	235		44c	1.4	8.5	8.4
196	173	Abbey National 10p	187	−3	5.7	4.3	4.1	7.6
282	238	Allied Irish Ord	264		mQ68%	3.3	3.1	13.6
£13¼	£11⅞	Algemene Fl 10	£12¹³⁄₁₆	+⅛	Q28%	2.0	6.9	7.3
85	73	Anglo Irish	80		Q18.7%	2.7	5.5	10.9
81	69	Ansbacher (H.) 1p	69	−2	2.5	1.3	4.8	19.9
£70⅝	£54¼	Bancaire Cie Fr100	£69⅞	−⅛	hQ12¼%	−	2.0	−
£22⅝	£16⅝	Banco Bilbao Viz	£16⅝		Q17.9%	2.0	4.3	11.5
£31	£24¼	Banco de Santander	£24¼		Q25%	2.4	4.7	8.9
286	248	Bank Ireland IrE1	260		mQ12%	3.2	4.5	8.9
£19½	£18	Bank Leumi	£19½		−	−	−	−
350	320	Bank Leumi (U.K.)	345		†13.5	−	5.2	−
125	110	Bank Scotland	112	−2	†3.8	3.6	4.5	8.1
100¼	90	Do. 9¼pc Irrd Pf.	92		9¼%	−	13.4	−
54	52	Bank of Wales	52		2.8	1.6	7.2	10.9
599	539	Barclays £1	544	−6	27.4	3.5	6.7	5.4
22	16	Benchmark 20p	16		1.63	1.0	13.5	9.2
335	310	Brown Shipley £1	315		†10.5	−	4.4	−
455	400	Cater Allen £1	400	−3	23.5	−	7.8	−
179	149	Chancery	161	−1	†8.0	2.8	6.6	7.1
£23¼	£19⅞	Commerzbk DM10	£20⅞		Q18%	−	3.2	−
£27	£23½	C'hgn Hbk Kr100	£25		Q15%	−	5.5	−
£13¼	842	Dai Ichi KBk Y50	851	−9	mQ16%	8.8	0.3	32.5
£313	£262¼	Deutsche Bk DM50	£285	−2½	Q28%	−	1.8	−
£20⅞	£19	Espirito Santo	£20		Q75c	3.3	2.3	13.6
253	211	First Nat. Fin 10p	225	−5	13.0	2.4	7.7	6.9
121	106	FNFC 6.3pc Cv Pf	118		6.3%	−	7.1	−
£15¼	953	Fuji Bank Y50	1013	+21	Q15.6%	4.2	0.3	−
325	269	Gerrard & National	276	−3	18.5	−	8.9	−
154	145	Guinness Mahon 10p	146		ϕ2.1	−	1.9	−

[illegible]

Hire Purchase, Leasing, etc.

[illegible]

BEERS, WINES & SPIRITS

[illegible]

BUILDING, TIMBER, ROADS

[illegible]

BUILDING, TIMBER, ROADS — Contd

[illegible]

CHEMICALS, PLASTICS

[illegible]

DRAPERY AND STORES

[illegible]

ELECTRICALS

[illegible]

ELECTRICALS — Contd

[illegible]

ENGINEERING

[illegible]

ENGINEERING — Contd

[illegible]

FOOD, GROCERIES, ETC

[illegible]

HOTELS AND CATERERS

[illegible]

INDUSTRIALS (Miscel.)

[illegible]

INDUSTRIALS (Miscel.) — Contd

[illegible]

INDUSTRIALS (Miscel.) — Contd.

[illegible]

INSURANCES

[illegible]

LEISURE

[illegible]

LONDON SHARE SERVICE

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MOTORS, AIRCRAFT TRADES

1990 High	Low	Stock	Price	+ or –	Div Net	C'vr	Y'ld Gr's	P/E
£14¼	975	DAF N.V. Fl5	£11¼	–¼	Q50%	2.0	7.5	6.6
149	120	General Mtrs Units	139		...		5.4	
41	28	March Group 5p	30	–1				
£224½	£181½	Volkswagen DM50	£289½	–1½	Q20%	2.8	1.7	22.2
£44	£35	Volvo Kr25	£36½	–½	Q62%	♦	4.5	♦

Commercial Vehicles

1990 High	Low	Stock	Price	+ or –	Div Net	C'vr	Y'ld Gr's	P/E
253	188	ERF (Hldgs)	198	–3	15.0	3.7	10.1	3.5
180	140	Plaxton Grp	141	+1	8.5	♦	8.0	♦

Components

[illegible]

Garages and Distributors

[illegible]

NEWSPAPERS, PUBLISHERS

[illegible]

PAPER, PRINTING, ADVERTISING

[illegible]

PROPERTY

[illegible]

PROPERTY—Contd

[illegible]

SHOES AND LEATHER

[illegible]

SOUTH AFRICANS

[illegible]

TEXTILES

[illegible]

TOBACCOS

[illegible]

TRANSPORT

[illegible]

TRUSTS, FINANCE, LAND

Investment Trusts

[illegible]

TRUSTS, FINANCE, LAND—Contd

[illegible]

Finance, Land, etc

[illegible]

WATER

[illegible]

OIL AND GAS

[illegible]

OIL AND GAS—Contd

[illegible]

OVERSEAS TRADERS

[illegible]

PLANTATIONS

Rubbers, Palm Oil

[illegible]

Teas

[illegible]

MINES

Central Rand

[illegible]

Eastern Rand

[illegible]

Far West Rand

[illegible]

O.F.S.

[illegible]

Diamond and Platinum

[illegible]

Central African

[illegible]

Finance

[illegible]

Australians

[illegible]

Tins

[illegible]

MINES—Contd

Miscellaneous

[illegible]

THIRD MARKET

[illegible]

NOTES

[illegible]

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xf ex capital distribution.

REGIONAL & IRISH STOCKS

The following is a selection of Regional and Irish stocks, the latter being quoted in Irish currency.

Stock	Price	+ or –
Albany Inv 20p y	76	–2
Craig & Rose £1 y	810	...
Finlay Pkg. 5p y	56	–1
Holt (Jos) 25p y	1323	+3

IRISH

Stock	Price	+ or –
Cap 8½% Ln 1991	£97	...
9pc Cap Ln 1996	£93¼	+¼
Fin. 13% 97/02	£110¼	–¼
Arnotts	450	...
Carroll (P.J.) y	161	+1
Hall (R. & H.)	140xd	...
Helton Hldgs y	77	...
IRG	200	...
United Drug	165	...

TRADITIONAL OPTIONS

3-month call rates

Industrials	p
Allied-Lyons	39
Amstrad	5½
Astec (BSR)	5¼
BAT	83
BOC Grp	45
BTR	36
Barclays	49
Blue Circle	19
Boots	23
Bowaters	38
Brit Aerospace	42
British Steel	9
Brit. Telecom	25
Cadburys	27
Charter Cons	40
Comm Union	40
Courtaulds	24
Eurotunnel	60
FKI	7
FNFC	21
Gen Accident	90
GEC	18
Glaxo	56
Grand Met	45
Guardian	19
GKN	33
Hanson	18
Hawker Sidd	55
ICI	85
Ladbroke	25
Legal & Gen	34
Lex Service	26
Lloyds Bank	22
Lucas Inds	52
Marks & Spencer	17
Midland Bk	27
Nat West Bk	29
P & O Dfd	50
Polly Peck	37
Racal Elect	19
RHM	35
Rank Org Ord	68
Reed Intnl	33
STC	20
Sears	9½
SmKl. Beecham A	46
TI	38
TSB	11
Tesco	17
Thorn EMI	61
Trust Houses	22
T&N	17
Unilever	56
Vickers	18
Wellcome	68

Property	
Brit Land	32
Control Secs	5
Land Securities	44
MEPC	44
Mountleigh	14

Oils	
Aviva Petlm	5½
Brit Petroleum	28
Burmah Oil	52
Conroy Petlm	12
Gaelic Res	4½
Premier	10
Shell	37
Tuskar Res	10
Ultramar	31

Mines	
Lonrho	22
RTZ	45

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £1050 per annum for each security.

FT UNIT TRUST INFORMATION SERVICE

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AUTHORISED UNIT TRUSTS

Abbey Unit Tst Mngrs (1000)H
80 Holdenhurst Rd, Bournemouth 0345717373

	Init Charge	Canc. Price	Bid Price	Offer Price	+ or -	Yield Gr's
High Income						
American Income	6	51.30	51.30	54.87	-1.1	4.99
Gilts & Fixed Int	6	100.5	100.5	106.5	-0.4	10.33
High Inc Equity	6	126.5	129.8	138.1	-1.1	4.60
Worldwide Bond	6	196.9	196.9	208.6	-0.4	6.18
Capital Growth						
American Growth	6	186.5	188.3	200.4	-4.7	1.03
Asian Pacific	6	132.2	135.1	143.8	-0.9	0.00
Assets & Earnings	6	148.8	148.8	159.2	-0.7	3.05

Merlin Jupiter Unit Tst Mgrs Ltd (0905)F
197 Knightsbridge, London SW7 1RB 01-581 3020

	Init Charge	Canc. Price	Bid Price	Offer Price	+ or -	Yield Gr's
American Cap	5	103.7	106.4	113.1	-1.1	0.89
Income	5	88.99	90.19	95.94	-0.2	4.41
Resources & General	5	113.0	114.4	121.6	-0.6	2.65
Special Sits	5	32.36	32.36	34.42	-0.22	3.90
International	5	55.41	56.51	60.11	-0.76	2.87
Ecology	5	58.53	59.76	63.57	-0.4	1.89

Pearl Unit Trusts Ltd (1000)H
PO Box 500, Thorpe Wood, Peterborough PE3 6GD
Dealing: 0800 626577 Enquiries 0733 67767

	Init Charge	Canc. Price	Bid Price	Offer Price	+ or -	Yield Gr's
Growth	5	112.6	115.0	121.0	-0.9	3.44
(Accum Units)	5	179.5	183.3	192.9	-1.5	3.44
Income	6	167.3	170.4	181.2	-1.7	4.72
Equity	6	170.5	173.5	184.5	-1.6	3.29
(Accum Units)	6	321.6	327.2	348.0	-3.1	3.29
Intl Equity	6	174.8	177.0	188.2	-1.3	1.98
(Accum Units)	6	183.8	186.0	197.9	-1.3	1.98
UK Income	6	46.18	46.94	49.94	-0.4	4.65
UK Intl 25	6	46.34	46.94	49.93	-0.26	2.87

GUIDE TO UNIT TRUST PRICING

INITIAL CHARGES
These represent the marketing, administrative and other costs which have to be paid by new purchasers. These charges are included in the price when the customer buys units.

OFFER PRICE
The price at which units may be bought.

BID PRICE
The price at which units may be sold.

CANCELLATION PRICE
The maximum spread between the offer and bid prices is determined by a formula laid down by the government. In practice, unit trust managers quote a much narrower spread. As a result, the bid price is often set well above the minimum permissible price which is called the cancellation price in the table. However the bid price might be moved to the cancellation price in circumstances in which there is a large excess of sellers of units over buyers.

TIME
The time shown alongside the fund manager's name is the time at which the unit trusts' daily dealing prices are normally set unless another time is indicated by the symbol alongside the individual unit trust name. The symbols are as follows: ♥ - 0001 to 1100 hours; ♦ - 1101 to 1400 hours; ♠ - 1401 to 1700 hours; ♣ - 1701 to midnight.

HISTORIC PRICING
The letter H denotes that the managers will deal on a historic price basis. This means that investors can obtain a firm quotation at the time of dealing. The prices shown are the latest available before publication and may not be the current dealing levels because of an intervening portfolio revaluation or a switch to a forward pricing basis.

FORWARD PRICING
The letter F denotes that prices are set on a forward basis so that investors can be given no definite price in advance of the purchase or sale being carried out. The prices appearing in the newspaper show the prices at which deals were carried out yesterday.

SCHEME PARTICULARS AND REPORTS
The most recent report and scheme particulars can be obtained free of charge from fund managers. Other explanatory notes contained in last column of the FT Unit Trust Information pages.

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	Init Chrge	Canc. Price	Bid Price	Offer Price	+ or -	Yield Gr's
Thornton Unit Managers Ltd (1000)F						
39 Cavendish Sq., London W1M 7HF 01-493 7262						
Dealing 01-493 8545						
American Opps	5	52.67	53.66	57.22	-0.69	0.20
(Accum Units)	5	54.20	56.21	59.88	-0.72	0.20
European Opps	5	78.72	79.03	84.29	+0.92	0.00
(Accum Units)	5	79.15	79.46	84.75	+0.92	0.00
Far Eastern Opps	5	133.12	133.33xd	142.21	-0.26	0.00
(Accum Units)	5	133.97	134.18xd	143.12	-0.27	0.00
Golden Opps	5	38.64	38.64	41.20	-0.23	0.00
(Accum Units)	5	39.74	39.74	42.38	-0.23	0.00
Intl Hi-Yield	5	60.07	60.12	64.12	-0.04	4.29
(Accum Units)	5	65.48	65.54	69.90	-0.04	4.29
Sanyo Japan Tst	5	63.20	63.20xd	67.40	+1.07	0.00
(Accum Units)	5	63.20	63.20xd	67.40	+1.07	0.00
Kangaroo	5	30.13	30.13	32.13	-0.22	1.30
(Accum Units)	5	30.30	30.30	32.31	-0.22	1.30
Oriental Income	5	33.34	33.39xd	35.60	+0.09	4.91
(Accum Units)	5	37.88	37.93xd	40.45	+0.10	4.91
Tiger	5	151.12	151.12xd	161.19	-1.26	0.69
(Accum Units)	5	153.80	153.80xd	164.04	-1.28	0.69
UK Hi-Yield	5	42.35	42.35	45.16	-0.23	5.06
(Accum Units)	5	48.42	48.42	51.64	-0.26	5.06
UK Opps	5	53.30	55.90	59.77	-0.10	0.71
(Accum Units)	5	58.00	60.82	65.04	-0.10	0.71
Three Counties Asset Mngmt Ltd (1430)F						
Cuthbert House, Tower Road, Washington NE37 2SH 091 415 3034						
Balanced Portfolio	6	90.71	92.20	98.16	-1.24	4.00
Timberlake Unit Trust Mngrs Ltd (0900)F						
1 White Hart Yard, London SE1 1NX 01 407 5966						
Portfolio	2	97.92	97.92	100.63	+0.24	1.18
Touche Remnant Unit Tst Mngt Ltd (1600)F						
Mermaid Hse, 2 Puddle Dock, EC4V 3AT 01-248 1250						
4 Hourly Pricing – 12 Noon Historic						
TR American Grwth	5¼	47.14	47.14xd	50.28	-0.62	0
TR Eur Sp Sits Acc	5¼	45.77	45.77	48.74	-0.20	0
TR Eur Sp Sits Inc	5¼	44.88	44.88xd	47.80	-0.19	0
TR Far East Opps Inc	5¼	23.60	23.60	25.13	-0.22	–
TR Far East Opps Acc	5¼	23.60	23.60	25.13	-0.22	–
TR General Growth	5¼	72.13	72.13	76.79	-0.63	2.67
TR Global Tech	5¼	73.35	73.35	78.24	-0.88	0
TR Income Growth	5¼	83.16	83.16	88.46	-0.75	4.58
TR Income Monthly	5¼	51.24	51.24	54.51	-0.38	7.40
TR Japan Growth	5¼	78.95	78.95	83.83	+2.16	0
TR Overseas Growth	5¼	66.25	66.25	70.68	+1.08	0
TR Smaller Cos	5¼	74.38	74.38xd	79.12	-0.40	2.44

	Bid Price	Offer Price	+ or -	Yield Gross
NM Rothschild Asset Management Ltd				
NC Managed	56.1	59.7xd	-0.7	3.85
NC Property	191.9	209.7xd	.....	–
J. Rothschild Fund Managers Ltd				
Intl Exempt	142.9	144.4	.....	3.58
Stewart Ivory & Co Ltd				
Saints PPP Mar 14	255.5	269.0	.....	0.00
Closed to new business				
Thornton Unit Managers Ltd				
Managed Exempt Apr 17	101.53	107.65xd	.....	3.84
(Accum Units)	100.74	108.46xd	.....	3.84
Touche Remnant Unit Tst Mngt Ltd				
TR Exempt European	1248	1264xd	+2	1.43
TR Exempt Nth Amer	969	983xd	-1	3.31
TR Exempt Pac Basin	865	877xd	+1	0

INSURANCES

	Bid Price	Offer Price	+ or -	Yield Gross
AA Friendly Society				
(Investment Mngt M & G Inv Mngt Ltd)				
AA Friendly Sy Apr 12	–	168.3	.....	–
Abbey Life Assurance Co Ltd				
80 Holdenhurst Road, Bournemouth 0202 292373				
Prop. Ser. 1	298.6	314.4	.....	–
Equity Ser. 1	126.2	132.9	-1.4	–
Prop. Acc. Ser 2	460.3	484.6	.....	–
Equity Ser 2	146.4	154.2	-1.4	–
Selective Acc.	337.2	355.0	-1.9	–
Prop. Ser. 4	360.5	379.5	.....	–
Equity Ser. 4	150.3	158.3	-1.2	–
Man. Ser. 4	432.4	455.2	-2.2	–
Fixed Int. Ser. 4	206.2	217.1	-0.4	–
Indexed Inv. Ser. 4	140.3	147.8	-0.1	–
American Ser. 4	319.6	336.5	-5.6	–

Barclays Life Assur. Co Ltd 252 Romford Road, London E7 01-534 5544

Clerical Medical Investments Group Narrow Plain, Bristol BS2 0JH 0272-290566

Equity & Law–Contd.

Guardian Royal Exchange – Contd.

Laurentian Life plc – Contd.

Legal & General (Unit Assur) Ltd

Merchant Investors Assurance Co Ltd – Contd.

Family Assurance Society

Continued on next page

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	Bid Price	Offer Price	+ or -	Yield Gross
National Financial Management Corp PLC				
72 Gatehouse Rd, Aylesbury, HP19 3AJ 0296 395539				
Life Funds				
Managed Cautionary	101.1	106.5	-0.9	-
Managed Growth	138.3	145.6	-0.2	-
Managed Opportunity	141.8	149.3	-0.2	-
NFMC Target Financial	98.9	104.2	-0.5	-
Pension Funds				
Managed Cautionary	106.6	112.3	-0.6	-
Managed Growth	142.5	150.0	-0.3	-
Managed Opportunity	143.5	151.1	-0.3	-
NFMC Target Mngd Pen.	1483.9	1562.1	-4.9	-
National Mutual Life				
The Priory, Priory Pk, Hitchin, SG5 2DW 0462 422422				
Managed Fund	219.3	230.9		-
Managed Prospect Fund	183.9	193.6	...	-
Pens Managed	285.2	300.3		-
Pens UK Equity	330.4	347.8		-
Pens Overseas Equity	406.8	428.3		-
Pens Property	145.8	153.5		-
Pens Fixed Interest	168.9	177.8		-
Pens Index Linked	141.6	149.1	...	-
Pens Deposit	193.9	204.2		-
Harvester & P.R.P.				
UK Equity	144.4	152.1		-
Overseas Equity	145.6	153.3		-
Fixed Interest	115.4	121.5		-
Property	121.4	127.8		-
Index Linked	128.7	135.5		-
Deposit	134.6	141.7		-
Managed	143.8	151.4	.....	-
With Profits	137.3	144.6		-
National Provident Institution				
48 Gracechurch St, London EC3P 3HH 01-623 4200				
Managed	332.1	349.6	-3.7	-
UK Equity	416.8	433.9	-5.7	-
Overseas Eq	357.2	376.1	-4.1	-
Americas	267.3	281.4	-4.6	-
Far East	369.7	389.2	+2.6	-
Property	217.3	228.9	-0.1	-
Fixed Int	206.3	217.2	-2.0	-
Indexed Gilt	134.7	141.8	-0.8	-
Deposit	162.3	170.9	+0.1	-
Pension Fund (Accum Units)				
Managed	451.1	474.9	-4.6	-

	Bid Price	Offer Price	+ or -	Yield Gross
Providence Capitol Life Assc. Co Ltd — Contd.				
UK Managed Initial	113.0		-0.6	-
Property Initial	168.0		+0.3	-
Money Initial	79.9			-
Special Market Initial	132.2		-0.2	-
Japan Equity Initial	97.0		+3.4	-
North American Initial	82.5		-1.3	-
Pacific Initial	76.7		+0.1	-
Technology Initial	91.6		-0.2	-
Nat Resources Initial	56.5		-0.2	-
European Initial	110.3		-0.4	-
Prudential Prop Init	99.7			-
Swiss Equities Initial	36.7		-0.1	-
Hong Kong Initial	51.0			-
UK High Inc Eq Init	65.6		-1.0	-
Int Fixed Interest Init	48.6		-0.2	-
Int Managed Init	56.7		-0.2	-
HIP Managed Init	112.1		-0.5	-
HIP Managed II Initial	97.7		..	-
Broker Funds				
High Performance	75.2	79.3	+0.2	-
Towerhill Mngd Fd Acc	50.4	53.1	+0.2	-
FKA Executive Fd	92.5	97.5		-
£ Global Growth Acc	130.5	137.6	..	-
CRJ Income Mngd Acc	112.4	117.7	..	-
IAB Managed	89.3		-0.3	-
H F Speculator Fd	153.3		-0.9	-
PEP Accm II	131.4		-0.3	-
PEP Cautionary	82.4			-
AAFS Int Man Fund	118.0			-
Andrew Green Int Port	99.1		+0.1	-
Individual Pension Funds				
UK Equity Acc	214.3	226.1	-3.5	-
UK Fixed Interest Acc	171.5	181.0	-0.2	-
Intl Securities Acc	250.9	264.7	-1.7	-
UK Managed Acc	177.8	187.5	-1.0	-
Property Acc	212.2	223.9	+0.7	-
Money Acc	138.5	146.2	+0.1	-
Special Market Acc	264.9	279.5	-0.5	-
Japan Equity Acc	196.8	207.6	+7.4	-
North American Acc	128.5	135.6	-2.6	-
Pacific Acc	193.2	203.8	+0.4	-
Technology Acc	150.6	158.9	-0.4	-
Natural Resources Acc	111.2	117.4	-0.5	-
European Acc	148.3	156.5	-0.6	-
Prudential Prop Acc	109.9	116.0		-
Swiss Equities Acc	38.0	40.1	-0.2	-
Hong Kong Acc	53.6	56.4	-0.1	-

[illegible]

OFFSHORE AND OVERSEAS

GUERNSEY (SIB RECOGNISED)

[illegible]

MANAGEMENT SERVICES

[illegible]

ISLE OF MAN (SIB RECOGNISED)

[illegible]

LUXEMBOURG (SIB RECOGNISED)

[illegible]

JERSEY (SIB RECOGNISED)

[illegible]

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	Init Chrge	Canc. Price	Bid Price	Offer Price	+ or -	Yield Gr's
Ivory & Sime (Luxembourg) SA						
13 rue Goethe L-1637 Luxembourg 010 352 4046461						
Atlas Fund						
Global Cap Portfolio	-	$-	2.431	2.578	[illegible]	0.25
United States Portfolio	-	$-	2.489	2.641	[illegible]	0.58
United Gordon Portfolio	-	£-	1.065	1.136	[illegible]	11.00
Cont'l Europe Portfolio	-	DM-	4.585	4.861	[illegible]	0.45
Europriva Portfolio		£-	1.169	1.243	[illegible]	-
Japan Portfolio	-	£-	0.763	0.810	[illegible]	-
Pacific Portfolio	-	$-	2.686	2.849	[illegible]	2.00
Gold Portfolio	-	$-	2.031	2.154	[illegible]	0.35
UK Growth of Income	-	£-	1.137	1.207	[illegible]	1.90
Sterling Gilt Portfolio	-	£-	0.889	0.943	[illegible]	5.00
Global Bond Portfolio	-	$-	1.873	1.985	[illegible]	3.50
Dollar Portfolio	-	$-	2.071	2.071	...	7.50
Yen Portfolio	-	£-	0.877	0.878	[illegible]	2.20
Sterling Portfolio	-	£-	1.043	1.044	...	16.40
Midland International Circuit Fund SICAV						
Midland Bank Fund Managers (Jersey) Ltd						
PO Box 26, St Helier, Jersey 0534 37788						
UK Growth		£-	0.992	1.053	...	-
European Growth		£-	1.124	1.192	[illegible]	-
Japan Growth		£-	1.017	1.079	...	-
Pacific Growth		£-	0.981	1.040	[illegible]	-
Nth American Growth		£-	1.021	1.084	[illegible]	-
UK Fixed Interest		£-	1.016	1.078	...	-
Multicurrency Bond		£-	1.016	1.078	[illegible]	-
UK Stlg Liquidity		£-	1.019	1.082	[illegible]	-
US$ Liquidity		£-	1.026	1.088	[illegible]	-
Morgan Grenfell UT Mgrs/Deutsche Bank						
Representative for IHM, Luxembourg						
20 Finsbury Circus, EC2M 2UT 01-826 0826						
Eurorenta		DM-	79.64	82.10	+0.1	-
DM Reserve		DM-	115.67	116.90	+0.1	-
Dollarrenta		$-	48.36	49.90	...	-
Nomura Global Fund						
UK dealing agent National Inv Group plc, Holland Hse, 1/4 Bury Street, London EC3A 5AT 01-283 8050						
Asia Pacific P'folio			$8.41		...	-
Royal Trust Asselmix Fund						

	Bid Price	Offer Price	+ or -	Yield Gross
Nikko Capital Mngt (Europe) Ltd				
Japan Index Fund	Y3,269	3,301	...	-
New Generation Fd. $	$18.87	19.07	...	-
Japan Index Alpha	Y9,795	9,942	...	-
Jap Sector Rotation	Y8,499	8,621	...	-
Stronghold Asset Mngmt (Guernsey) Ltd				
Tech and Comm.	£13.07	13.88	...	-
Pacific Basin Fd	$108.30	111.92	...	-
Western European	$18.55	19.09	...	-
Tyndall International (Guernsey) Ltd				
Capital Defender	$1.26	1.34	...	-
HI Yield Bond	62.4	65.6	...	13.30
Internat. Spec. Sits	48.9	51.5	...	-
Maramouchi Fd	77.9	81.9	+1.6	-
U.S. Treasury Securities Fund Ltd				
Short Term Shares	$702.26		...	-
Fixed Income Shares	$804.76		...	-
Wellington Fd Mngrs (Guernsey) Ltd				
Intl Growth Fd	$13.58	14.25	...	-
Yamaichi Capital Mangmt (Guernsey) Ltd				
Japan Meta Growth	$11.27		+0.15	-
Yamaichi ISS Fund	$7.91		+0.22	-
Yamaichi CB Plus Fund	$8.45		+0.13	-
Thai Joy Fund	$12.02		-0.04	-

JERSEY (**)

	Bid Price	Offer Price	+ or -	Yield Gross
Allied Irish Fund Managers (CI) Ltd				
Sterling Currency Fd	£14.5692		...	-
Managed Currency Fd	$34.6758		...	-
Do Sterling Equivalent	£21.2077		...	-
Ecu	Ecu12.8009		...	-
Irish Gilt Fd	I£187.4006		...	-
Intl Managed Dollar	$23.6724		...	-
Intl Managed Bond	I£21.1656		...	-
Barclays Intl Funds				
Currency Funds				
Sterling	£17.66		+0.01	13.7

ISLE OF MAN (**)

LUXEMBOURG (**)

SWITZERLAND (SIB RECOGNISED)

CANADA (SIB RECOGNISED)

DUBLIN (SIB RECOGNISED)

GUERNSEY (**)

OTHER OFFSHORE FUNDS

OFFSHORE INSURANCES

	Bid Price	Offer Price	+ or -	Yield Gross
Nomura Rosenberg Alpha Fund Mark II				
Portfolio A. NAV	$13.17			-
Portfolio B. NAV	$10.00			-
North Star Fund Managers (Cayman) Ltd				
Invest Fund	DKr261.0	262.0	...	-
Low Risk Fund	DKr204.0	205.0		-
High Perf. Fund	DKr243.0	244.0		-
Bond Fund	DKr159.0	160.0		-
Second Low Risk Fd	DKr168.0	169.0	...	-
Second High Perform Fd	DKr196.0	197.0		-
Mixed Intl Fd	DM142.0	143.0		-
Invest Fd (Cayman)	DKr115.0	116.0		-
High Perf Fd (Cayman)	DKr123.0	124.0		-

	Bid Price	Offer Price	+ or -	Yield Gross
US Pacific Stock Fund				
NAV Apr 19	$15.94			-
Unico Financial Services SA Lux				
DG Investment Bank Ltd				
Unico Invest Fund	DM70.09	72.20	...	3.00
Unico Equity Fund	DM63.88	65.80	...	3.00
Union-Investment-Gesellschaft GmbH				
Unifonds	DM30.41	40.40		-
Unirak	DM82.30	86.45		-
Unirenta	DM24.40	35.50		-
Viking Fund—SICAV				
Wardley Investment Services Ltd				
Wardley S E Asia Td	$12.79	13.15	+0.20	0.04
Japanese Warrants	$7.24	7.67	-0.11	-
Asian Warrants	$9.22	9.77	+0.05	-
European Warrants	$10.05	10.65	+0.05	-
Wells Fargo U.S. IT Fund				
NAV April 18		$9.53		-
Xiphias International Investment Fd Ltd				
Xiphias Int USD		$1.0099		-
Xiphias Int ECU		Ecu1.0127		-
Yamaichi Dynamic Mngt Co SA				
Advanced Tech		$20.67		-

Money Market Trust Funds

	Gross	Net	Gr Equiv CAR	Int Cr
CAF Money Management Co Ltd				
48 Pembury Road, Tonbridge TN9 2JD 0732 770114				
Cafcash Deposit Fd	14.66	-	15.49	3-Mth
The COIF Charities Deposit Account				
2 Fore Street				
Deposit	14.75	-	15.59	3-Mth
Gartmore Money Management Ltd				
2-3 White Hart Yard, London SE1 1NX 01-236 1425				
Call Fnd	14.99	11.69	16.04	6-Mth
7-day Fund	14.36	11.20	15.35	6-Mth
Special Fund	14.76	-	16.31	Mth
Dollar	7.06	5.51	7.52	3-Mth

Money Market Bank Accounts

	Gross	Net	Gr Equiv CAR	Int Cr
Aitken Hume Bank plc				
30 City Road, EC1Y 2AY 01-638 6070				
Treasury Acc	13.50	10.53	14.60	Qtr
[illegible]	13.50	10.53	14.73	Mth
[illegible]	14.00	10.92	15.01	Mth
Mth Int Chq £50,000-	14.50	11.31	15.08	Mth
Allied Trust Bank Ltd				
97-101 Cannon St, London EC4N 5AD 01-626 0802				
OMIBA (£2,001+)	14.79	11.53	16.210	Mth
HICA (£2,001+)	13.90	10.84	15.196	Mth
PROMIA (£250,001+)	14.90	11.62	16.249	-
Bank of Ireland High Interest Cheque Acc				
36 Queen St, EC4R 1BN 01-625 7000				
2,000-9,999	13.792	10.750	14.921	Qtr
£10,000+	14.103	11.000	15.293	Qtr
Bank of Scotland				
38 Threadneedle St, EC2P 2EH 01-601 6746				
Money Mkt Cheque Acc	13.6	10.61	14.85	Mth
Barclays Capital Advantage Account				
94 St Paul's Churchyard EC4M 8EH 01-248 9155				
£10,000+	13.50	10.75	14.92	Qtr
Barclays Prime Account H.I.C.A.				
...				
£10,000-£24,999	13.59	10.50	14.71	Qtr
£2,500-£9,999	12.50	9.75	13.49	Qtr
Save & Prosper/Robert Fleming				
28 Western Rd, Romford RM1 3LB 0708 766966				
H I B A	13.25	10.24	14.52	Daily
Sterling Bank & Trust Ltd				
Abbey Gdns, & Abbey St, Reading RG1 3BA 0734 592543				
HIDA £2,500+	13.70	10.72	14.68	6-Mth
TSB Bank plc (England & Wales)				
100 Lower Thames St, London EC3R 6AQ 01-623 6000				
HICA £1-£499	7.00	5.50	7.33	Yearly
£500-£1,999	9.50	7.50	10.00	Yearly
£2,000-£9,999	11.50	9.00	12.00	Yearly
£10,000-£24,999	11.75	9.30	12.40	Yearly
£25,000+	12.25	9.60	12.80	Yearly
Tyndall & Co Ltd				
29-33 Princess Victoria St, Bristol 0272 744720				
Demand Acc	13.87	10.82	15.02	Qtr
HICIA	13.75	10.73	14.93	Qtr
HIMA £100,000+	14.00	10.92	15.22	Qtr
Client Plus Acc	13.37	10.43	14.46	Qtr
J. Henry Schroder Wagg & Co Ltd				
120 Cheapside, London EC2V 6DS 01-382 6000				
Special Acc	13.750	10.76	15.08	Mth
£10,000 and above	14.000	10.96	15.37	Mth
Western Trust High Interest Cheque Acc				
The Moneycentre, Plymouth PL1 1SE 0752 224141				
£25,000+	14.50	11.31	15.73	Qtr
£5,000-£24,999	14.25	11.12	15.45	Qtr
£1,000-£4,999	14.00	10.92	15.17	Qtr
Wimbledon & South West Finance Co Ltd				
114 Newgate St, London EC1 7AE 01-606 9485				
High Int Cheque Acc	14.50	11.31	15.73	Qtr

NOTES—Gross rate to those exempt from composite rate of tax. Net actual rate after deduction of CRT. Gr Equiv CAR: Gross equivalent to basic rate taxpayers—compounded annual rate. Int Cr: frequency interest credited.

UNIT TRUST NOTES

Prices are in pence unless otherwise indicated and those designated $ with no prefix refer to U.S. dollars. Yields % allow for all buying expenses. Prices of certain older insurance linked plans subject to capital gains tax on sales. b Distribution free of UK taxes. p Periodic premium insurance plans. s Single premium insurance. x Offered price includes all expenses except agent's commission. y Previous day's price. ♦ Guernsey gross. # Suspended. ♦ Yield before Jersey tax. † Ex-subdivision. †† Only available to charitable bodies. ø Yield column shows annualised rates of NAV increase adding dividend. (**) Funds not SIB recognised.

CURRENCIES, MONEY AND CAPITAL MARKETS

FOREIGN EXCHANGES

Yen and sterling improve

THE WEAK yen and sterling rallied on the foreign exchanges yesterday, but the move appeared to be largely technical and did not change the underlying vulnerability of both currencies.

Selling of US Treasury bonds by Japanese investors has been evident in recent weeks, although it remains unclear whether this represents a permanent repatriation of funds back to Tokyo, to cover losses on Japanese equities, or is simply an attempt to drive bond yields higher ahead of the next month's Treasury auction.

The move out of US bonds undermined the dollar yesterday, while sales of dollars by the Bank of Japan contributed to an improvement by the yen against the US currency. Unwinding of long D-Mark positions - after the West German currency fell through technical support at Y95.00 - also boosted the yen.

In Tokyo the Bank of Japan sold an estimated $400m. The dollar closed at Y157.75 in the Far East and continued to decline during European trading. It touched a low of Y156.10, before closing at Y156.45 in London, compared with Y159.10 on Wednesday.

The D-Mark also weakened sharply against the yen, falling to Y94.25 at the Tokyo close and to Y93.30 at the finish of trading in London, from Y95.15 previously. The weakening of the D-Mark was even more pronounced than the decline of the dollar against the yen. This led to a fall of several European currencies in terms of the dollar, because of their link with the D-Mark through the European Monetary System. The dollar rose DM1.6770 from DM1.6720 and to FFr5.6375 from FFr5.6200, but eased to SFr1.4825 from SFr1.4835 against the Swiss franc, which is not a member of the EMS. The dollar's index fell to 68.1 from 68.3.

Technical factors dominated the market in the absence of fresh economic news. This was helpful to sterling, which found itself in a similar position to the yen after a period of sustained weakness. A liquidation of long positions in the dollar and D-Mark led to renewed demand for the pound. Sterling gained 65 points to $1.6440. The pound also advanced to DM2.7575 from DM2.7375; to FFr9.2675 from FFr9.2025; and to SFr2.4375 from SFr2.4300, but fell to Y257.25 from Y260.50 against the strong yen. Sterling's index rose 0.4 to 87.1.

Trading within the EMS was subdued as attention focused on the yen. The Spanish peseta remained the strongest currency, followed by the Italian lira, which eased below its cross rate limit against the weaker members. One of the weaker EMS currencies is now the D-Mark, which traded only slightly above the Belgian and French francs yesterday, and below the Danish krone. At the London close the D-Mark had improved to L734.75 from L734.45 against the Italian currency, and was little changed at FFr3.3615, compared with FFr3.3610, in terms of the French franc.

£ IN NEW YORK

Apr 19	Latest	Previous Close
£ Spot	1.6420-1.6430	1.6365-1.6395
1 month	0.88-0.85cpm	0.90-0.89pm
3 months	2.60-2.56cpm	2.62-2.59pm
12 months	9.45-9.35pm	9.63-9.58pm

Forward premiums and discounts apply to the US dollar

STERLING INDEX

	Apr 19	Previous
8.30 am	87.0	86.9
9.00 am	87.0	86.8
10.00 am	86.9	86.9
11.00 am	87.0	86.9
Noon	87.1	86.9
1.00 pm	87.1	86.9
2.00 pm	87.2	86.9
3.00 pm	87.1	86.8
4.00 pm	87.1	86.7

CURRENCY RATES

Apr 19	Bank rate %	Special* Drawing Rights	European † Currency Unit
Sterling	-	0.796055	0.741756
U S Dollar	7	1.30139	1.22219
Canadian $	13.32	1.51248	1.42019
Austrian Sch	6½	15.3889	14.3815
Belgian Franc	10¼	45.2721	42.3306
Danish Krone	10½	8.33085	7.79086
Deutsche Mark	6.00	2.18660	2.04363
Neth Guilder	7.00	2.46223	2.30029
French Franc	10¼	7.34830	6.87239
Italian Lira	13½	1606.47	1502.44
Japanese Yen	5¼	208.353	191.945
Norway Krone	8	8.51239	7.95647
Spanish Peseta	-	138.689	129.418
Swedish Krona	12	7.95019	7.43337
Swiss Franc	6.00	1.94167	1.80701
Greek Drach	20½	212.518	199.511
Irish Punt	-	0.816013	0.762821

† European Commission Calculations
* All SDR rates are for Apr 18

CURRENCY MOVEMENTS

Apr 19	Bank of England Index	Morgan** Guaranty Changes %
Sterling	87.1	-24.7
U.S Dollar	68.1	-9.6
Canadian Dollar	105.1	+2.0
Austrian Schilling	110.4	+12.4
Belgian Franc	111.3	-2.2
Danish Krone	111.4	+5.7
Deutsche Mark	119.4	+25.3
Swiss Franc	110.1	-17.7
Guilder	115.2	+16.9
French Franc	105.2	-11.4
Lira	101.8	-17.7
Yen	118.6	+44.8

Morgan Guaranty changes, average 1980-1982=100. Bank of England Index (Base Average 1985=100). **Rates are for Apr 18.

OTHER CURRENCIES

Apr 19	£	$
Argentina	8281.70-8300.70	5040.00-5050.00
Australia	2.1260-2.1280	1.2930-1.2940
Brazil	96.9490-98.6220	59.0000-60.0000
Finland	6.5120-6.5330	3.9670-3.9700
Greece	268.75-268.95	163.55-163.65
Hong Kong	12.8045-12.8175	7.7915-7.7935
Iran	115.80*	70.40*
Korea(Sth)	1149.85-1168.40	704.20-709.80
Kuwait	0.48170-0.48230	0.29380-0.29400
Luxembourg	57.00-57.10	34.65-34.75
Malaysia	4.4590-4.4700	2.7170-2.7190
Mexico	4596.00-4599.10	2797.00-2900.00
N Zealand	2.8245-2.8290	1.7190-1.7210
Saudi Ar.	6.1480-6.1535	3.7500-3.7510
Singapore	3.0800-3.0870	1.8730-1.8750
S Af (Cm)	4.3435-4.3545	2.6460-2.6475
S Af (Fn)	6.4470-6.5760	3.9215-4.0000
Taiwan	43.30-43.40	26.35-26.40
U.A.E.	6.1480-6.1535	3.6720-3.6730

*Selling rate

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu central rates	Currency amounts against Ecu Apr 19	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc	42.1679	42.3306	+0.39	+0.49	±1.5508
Danish Krone	7.79845	7.79086	-0.10	0.00	±1.6453
German D-Mark	2.04446	2.04363	-0.04	+0.06	±1.1762
French Franc	6.85684	6.87239	+0.23	+0.33	±1.3618
Dutch Guilder	2.30358	2.30029	-0.14	-0.04	±1.5272
Irish Punt	0.763159	0.762821	-0.04	+0.06	±1.6689
Italian Lira	1529.70	1502.44	-1.78	-1.68	±1.5162
Spanish Peseta	132.889	129.418	-2.61	-2.61	±4.2705

Changes are for Ecu, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

POUND SPOT- FORWARD AGAINST THE POUND

Apr.19	Day's spread	Close	One month	% p.a.	Three months	% p.a.
US	1.6395-1.6490	1.6435-1.6445	0.88-0.86cpm	6.35	2.61-2.58pm	6.31
Canada	1.9080-1.9125	1.9105-1.9115	0.30-0.22cpm	1.63	0.77-0.64pm	1.48
Netherlands	3.09¼-3.10¼	3.09¾-3.10¾	1⅛-1⅜cpm	6.53	4⅞-4⅝pm	6.20
Belgium	56.80-57.15	57.00-57.10	24-22cpm	4.84	69-65pm	4.70
Denmark	10.47-10.51	10.48¼-10.49¼	2⅞-2⅝orepm	3.15	9⅞-9⅝pm	3.62
Ireland	1.0245-1.0290	1.0280-1.0290	0.32-0.27cpm	3.44	0.88-0.78pm	3.23
W Germany	2.74½-2.76	2.75½-2.76	1⅝-1½pfpm	6.80	4⅝-4½pm	6.62
Portugal	243.35-244.70	243.40-244.40	1-19cdis	-0.49	75-110dis	-1.52
Spain	173.90-174.60	174.20-174.50	17-9cpm	0.89	46-33pm	0.91
Italy	2020¼-2026¼	2025¼-2026¼	6-4lirepm	2.96	15-13pm	2.76
Norway	10.69¼-10.73¼	10.71-10.72	2¼-2⅛orepm	2.87	7⅝-7¼pm	2.75
France	9.23¼-9.27¼	9.26¼-9.27¼	3⅞-3¼cpm	4.94	11⅝-11⅛pm	4.96
Sweden	9.98¾-10.02½	10.00¼-10.01¼	1⅝-1orepm	1.27	3⅜-2¾pm	1.25
Japan	256¼-259¼	256¾-257¾	1⅞-1⅝ypm	7.87	4⅞-4½pm	7.48
Austria	19.33-19.39	19.35-19.38	9⅞-8⅛gropm	5.65	29⅞-27⅞pm	5.94
Switzerland	2.43-2.44¼	2.43¼-2.44¼	1⅛-1cpm	5.23	3⅛-3¼pm	5.44
ECU	1.3480-1.3500	1.3480-1.3490	0.52-0.49cpm	4.49	1.51-1.46pm	4.40

Commercial rates taken towards the end of London trading. Six-month forward dollar 5.12-5.07cpm 12 month 9.50-9.40cpm

DOLLAR SPOT- FORWARD AGAINST THE DOLLAR

Apr.19	Day's spread	Close	One month	% p.a.	Three months	% p.a.
UK†	1.6395-1.6490	1.6435-1.6445	0.88-0.86cpm	6.35	2.61-2.58pm	6.31
Ireland†	1.5975-1.6050	1.6000-1.6010	0.40-0.35cpm	2.81	1.30-1.20pm	3.12
Canada	1.1600-1.1630	1.1615-1.1625	0.44-0.47cdis	-4.70	1.40-1.45dis	-4.91
Netherlands	1.8795-1.8875	1.8865-1.8875	0.01dis-0.01cpm	-	par-0.03dis	-0.01
Belgium	34.50-34.75	34.65-34.75	3.00-8.00cdis	-1.91	9.00-19.00dis	-1.62
Denmark	6.36½-6.38¼	6.37¾-6.38¼	1.55-1.75oredis	-3.10	4.10-4.60dis	-2.73
W Germany	1.6685-1.6775	1.6765-1.6775	0.07-0.05pfpm	0.43	0.14-0.11pm	0.30
Portugal	148.20-148.50	148.20-148.30	80-90cdis	-6.88	285-305dis	-7.96
Spain	105.60-106.15	105.95-106.05	45-50cdis	-5.38	142-152dis	-5.55
Italy	1227½-1232½	1232-1232½	3.00-4.00liredis	-3.42	10.00-12.00dis	-3.58
Norway	6.50¼-6.52	6.51½-6.52	1.70-2.05oredis	-3.46	5.60-6.00dis	-3.56
France	5.61-5.64	5.63½-5.64	0.60-0.65cdis	-1.33	1.89-1.99dis	-1.38
Sweden	6.07¼-6.09	6.08½-6.09	2.62-2.77oredis	-5.32	7.80-8.15dis	-5.25
Japan	156.10-158.05	156.40-156.50	0.17-0.15ypm	1.22	0.48-0.45pm	1.19
Austria	11.75-11.78¼	11.78¼-11.78¾	par-0.40grodis	-0.20	0.50-1.60dis	-0.36
Switzerland	1.4760-1.4820	1.4820-1.4830	0.12-0.16cdis	-1.14	0.30-0.35dis	-0.88
ECU	1.2195-1.2215	1.2205-1.2215	0.20-0.19cpm	1.94	0.60-0.57pm	1.94

Commercial rates taken towards the end of London trading. † UK, Ireland and ECU are quoted in US currency. Forward premiums and discounts apply to the US dollar and not to the individual currency.

EURO-CURRENCY INTEREST RATES

Apr 19	Short term	7 Days notice	One Month	Three Months	Six Months	One Year
Sterling	15-14⅞	15-14⅞	15-14 15/16	15¼-15 3/16	15 5/16-15 3/16	15 13/16-15 11/16
US Dollar	8 5/16-8 3/16	8⅜-8¼	8 7/16-8 5/16	8 9/16-8 7/16	8¾-8⅝	9 1/16-8 15/16
Can Dollar	12⅞-12⅝	13-12¾	13 1/16-12 13/16	13⅜-13⅛	13 5/8-13 3/8	13¾-13½
D Guilder	8⅛-7⅞	8¼-8	8⅜-8⅛	8 5/8-8 3/8	8 13/16-8 11/16	9 1/16-8 13/16
Sw. Franc	10¼-9⅞	10-9¾	9⅞-9⅝	9½-9⅜	9⅜-9¼	9¼-9⅛
Deutschmark	8-7⅞	8-7⅞	8 1/16-7 15/16	8¼-8⅛	8⅝-8½	9-8⅞
Fr. Franc	9 13/16-9 11/16	9 13/16-9 11/16	9⅞-9¾	10-9⅞	10¼-10	10⅜-10¼
Italian Lira	13-11	12¼-11⅝	12⅛-11⅝	12¼-11⅞	12½-12¼	13 1/16-12⅞
Belgian Franc	10 1/16-9 13/16	10¼-10	10¼-10	10⅜-10¼	10⅝-10⅜	10⅝-10⅜
Yen	7⅛-6 15/16	7¼-7⅛	7⅜-7¼	7⅝-7½	7⅞-7¾	7 15/16-7 13/16
D Krone	11⅞-11½	12-11¾	11⅞-11½	11½-11⅜	11⅝-11⅜	11⅞-11⅝
Asian $Sing	8 5/16-8 3/16	8 5/16-8 3/16	8½-8⅜	8 9/16-8 7/16	8 13/16-8 11/16	9 1/16-8 15/16

Long term Eurodollars: two years 9⅜-9¼ per cent; three years 9 9/16-9 7/16 per cent; four years 9⅝-9½ per cent; five years 9 13/16-9 11/16 per cent nominal. Short term rates are call for US Dollars and Japanese Yen; others, two days' notice.

EXCHANGE CROSS RATES

Apr 19	£	$	DM	Yen	F Fr.	S Fr.	H Fl	Lira	C $	B Fr.
£	1	1.644	2.758	257.3	9.268	2.438	3.103	2026	1.911	57.05
$	0.608	1	1.678	156.5	5.637	1.483	1.887	1232	1.162	34.70
DM	0.363	0.596	1	93.29	3.360	0.884	1.125	734.6	0.693	20.69
YEN	3.887	6.389	10.72	1000.	36.02	9.475	12.06	7874	7.427	221.7
F Fr.	1.079	1.774	2.976	277.6	10.	2.631	3.348	2186	2.062	61.56
S Fr.	0.410	0.674	1.131	105.5	3.801	1	1.273	831.0	0.784	23.40
H Fl.	0.322	0.530	0.889	82.92	2.987	0.786	1	652.9	0.616	18.39
Lira	0.494	0.811	1.361	127.0	4.575	1.203	1.532	1000.	0.943	28.16
C $	0.523	0.860	1.443	134.6	4.850	1.276	1.624	1060	1	29.85
B Fr.	1.753	2.882	4.834	451.0	16.25	4.273	5.439	3551	3.350	100.

Yen per 1,000: French Fr. per 10: Lira per 1,000: Belgian Fr. per 100

FINANCIAL FUTURES AND OPTIONS

LONDON (LIFFE)

CHICAGO

THREE-MONTH PIBOR FUTURES (MATIF) (Paris interbank offered rate)

	Open	Close	Change	High	Low	Yield	Open Int.
June	89.96	89.92	-0.06	89.99	89.89	10.08	15,796
September	89.98	89.91	-0.11	89.99	89.88	10.09	5,987
December	89.98	89.92	-0.10	89.98	89.89	10.08	2,385
March	-	-	-	-	-	-	90

Estimated volume 9,529 Total Open Interest 24,258

CAC-40 FUTURES (MATIF) Stock Index

	Open	Close	Change	High	Low	Open Int.
April	2019.0	2120.0	+7.0	2120.5	2087.0	5,733
May	2090.0	2123.0	+5.0	2123.0	2090.0	910
June	2090.0	2123.0	+4.0	2123.0	2090.0	193
September	-	-	-	-	-	10

Estimated volume 5,421 Total Open Interest 6,846

Estimated volume 6235 (2823)
Previous day's open int. 18751 (18597)

POUND-$ (FOREIGN EXCHANGE)

Spot	1-mth.	3-mth.	6-mth.	12-mth.
1.6440	1.6354	1.6181	1.5931	1.5495

IMM-STERLING $s per £

	Latest	High	Low	Prev.
Jun	1.6296	1.6334	1.6286	1.6230
Sep	1.6056	1.6080	1.6040	1.5980
Dec	-	-	-	1.5744

BASE LENDING RATES

	%		%		%
ABN Bank	15	Co-operative Bank	*15	NatWestminster	15
Adam & Company	15	Coutts & Co	15	Northern Bank Ltd	15
Allied Trust Bank	15	Cyprus Popular Bk	15	Norwich Gen. Trust	15
Allied Irish Bank	15	Dunbar Bank PLC	15	Nykredit Mortgage Bank	15½
● Henry Ansbacher	15	Duncan Lawrie	15	PRIVATbanken Limited	15
Associates Cap Corp	15½	Equatorial Bank plc	15	Provincial Bank PLC	16
● B & C Merchant Bank	15	Exeter Trust Ltd	15½	Roxburghe G'rantee	15½
Bank of Baroda	15	Financial & Gen. Bank	15	Royal Bk of Scotland	15
Banco Bilbao Vizcaya	15	First National Bank Plc	16½	Royal Trust Bank	15
Bank Hapoalim	15	● Robert Fleming & Co.	15	● Smith & Williman Secs.	15
Bank Credit & Comm	15	Robert Fraser & Ptnrs.	15½	Standard Chartered	15
Bank of Cyprus	15	Girobank	15	TSB	15
Bank of Ireland	15	● Guinness Mahon	15	● United Bk of Kuwait	15
Bank of India	15	HFC Bank plc	15	United Mizrahi Bank	15
Bank of Scotland	15	● Hambros Bank	15	Unity Trust Bank Plc	15
Banque Belge Ltd	15	Hampshire Trust Plc	15½	Western Trust	15
Barclays Bank	15	Heritable & Gen Inv Bnk	15	Westpac Bank Corp.	15
Benchmark Bank PLC	15	● Hill Samuel	§15	Whiteaway Laidlaw	15
Brit Bk of Mid East	15	C. Hoare & Co.	15	Yorkshire Bank	15
● Brown Shipley	15	Hongkong & Shangh	15		
CL Bank Nederland	15	● Leopold Joseph & Sons	15		
● Charterhouse Bank	15	Lloyds Bank	15		
Citibank NA	15	Meghraj Bank Ltd	15		
City Merchants Bank	15	McDonnell Douglas Bnk.	15		
Clydesdale Bank	15	Midland Bank	15		
Comm. Bk.N.East	15	Mount Banking	15		
		Nat Bk. of Kuwait	15		

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MONEY MARKETS

Nervous trading

TRADING WAS subdued but nervous on the cash money and financial futures markets in London yesterday. The UK Public Sector Borrowing Requirement of £1.6bn for March was below market estimates of around £2.4bn, but sentiment was mainly influenced by fears of rising inflation. Despite the underlying inflationary worries a firmer pound kept pressure off interest rates. On the other hand long gilt futures hit record lows on Liffe, while short sterling futures hovered within a narrow range.

UK clearing bank base lending rate 15 per cent from October 5

Three-month sterling interbank was unchanged at 15 3/16-15 1/16 per cent, but nervousness in the market pushed one-year money up to 15 13/16-15 11/16 per cent from 15¾-15⅝. September short sterling has stabilised this week, after falling quite sharply. It finished 10 basis points above the near month of June yesterday, at 84.77, against 84.78 on Wednesday.

Credit was in short supply on the London money market. The Bank of England initially forecast a day-to-day shortage of £900m, but revised this to £950m at noon, and to £850m in the afternoon. Total help of £709m was provided.

An early round of help was offered and at that time the authorities bought £267m bills outright, by way of £104m bank bills in band 1 at 14⅞ per cent and £163m bank bills in band 2 at 14¾ per cent. Before lunch another £68m bills were purchased, via £1m Treasury bills in band 1 at 14⅞ per cent; £10m bank bills in band 1 at 14⅞ per cent; £1m Treasury bills in band 2 at 14¾ per cent; and £56m bank bills in band 2 at 14¾ per cent.

In the afternoon £359m bills were bought, through £169m bank bills in band 1 at 14⅞ per cent; £3m Treasury bills in band 2 at 14¾ per cent; and £187m bank bills in band 2 at 14¾ per cent. Late assistance of around £15m was also provided.

Bills maturing in official hands, repayment of late assistance and a take-up of Treasury bills drained £407m, with Exchequer transactions absorbing £605m and a rise in the note circulation £10m. These outweighed bank balances above target of £110m.

In Frankfurt call money eased to 7.80 from 7.85 per cent as the Bundesbank council left official interest rates unchanged at yesterday's council meeting. The discount rate remains at 6 per cent and the Lombard emergency financing rate at 8 per cent.

FT LONDON INTERBANK FIXING

(11.00 a.m. Apr.19) 3 months US dollars		6 months US Dollars	
bid 8 7/16	offer 8 9/16	bid 8⅝	offer 8¾

The fixing rates are the arithmetic means rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted to the market by five reference banks at 11.00 a.m. each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque National de Paris and Morgan Guaranty Trust.

MONEY RATES

NEW YORK (Lunchtime)

Prime rate	10
Broker loan rate	9¾
Fed funds	8 5/16
Fed funds at intervention	-

Treasury Bills and Bonds

One month	7.37	Three year	8.85
Two month	7.61	Four year	8.86
Three month	8.07	Five year	8.85
Six month	8.29	Seven year	8.89
One year	8.47	10-year	8.87
Two year	8.82	30-year	8.86

Apr 19	Overnight	One Month	Two Months	Three Months	Six Months	Lombard Intervention
Frankfurt	7.75-7.85	7.80-7.90	7.95-8.10	8.10-8.25	8.50-8.65	8.00
Paris	9 11/16-9 13/16	9¾-9⅞	9 15/16-9 13/16	9 15/16-10 1/16	10-10⅛	9.75
Zurich	8¾-8⅝	9-9¼	-	9-9¼	-	-
Amsterdam	8.18-8.31	8.34-8.42	-	8.45-8.55	-	-
Tokyo	7-7⅛	7⅜-7 11/16	-	7⅜-7⅝	-	-
Milan	11⅞-12⅜	11¾-12	-	12⅛-12⅜	-	-
Brussels	8.65	10-10⅛	-	10 3/16-10 5/16	-	-
Dublin	11-11⅛	11 13/16-11 15/16	11 13/16-11 15/16	12-12⅛	12⅛-12¼	-

LONDON MONEY RATES

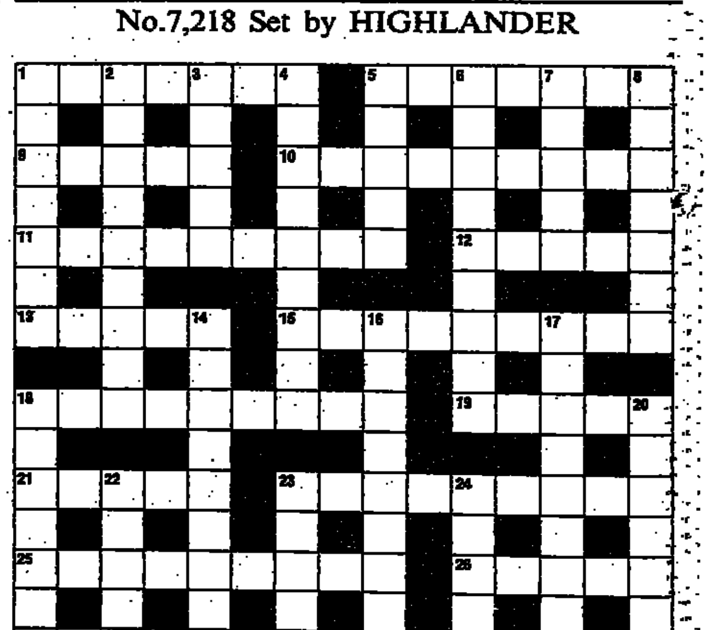
Apr 19	Overnight	7 days notice	One Month	Three Months	Six Months	One Year
Interbank Offer	15½	15	15 1/16	15¼	15½	15 15/16
Interbank Bid	14 13/16	14⅞	14 15/16	15⅛	15⅜	15 13/16
Sterling CDs	-	-	14 15/16	15⅛	15 5/16	15¾
Local Authority Deps	14 13/16	14⅞	14 15/16	15⅛	15 5/16	15 13/16
Local Authority Bonds	-	-	-	-	-	-
Discount Mkt Deps	15	14 13/16	14 13/16	14⅞	-	-
Company Deposits	-	-	15	15 3/16	15½	15⅞
Finance House Deposits	-	-	14 15/16	15 3/16	15 5/16	15¾
Treasury Bills (Buy)	-	-	14 13/16	14⅞	-	-
Bank Bills (Buy)	-	-	14 13/16	14 13/16	14⅞	-
Fine Trade Bills (Buy)	-	-	15 11/16	15 5/16	15	-
Dollar CDs	-	-	8.40	8.52	8.65	8.98
SDR Linked Dep. Offer	-	-	9⅛	9¼	9⅜	9 13/16
SDR Linked Dep. Bid	-	-	9	9⅛	9¼	9 11/16
ECU Linked Dep Offer	-	-	10 3/16	10¼	10⅜	10 13/16
ECU Linked Dep Bid	-	-	10 1/16	10⅛	10¼	10 11/16

Treasury Bills (sell); one-month 14 11/16 per cent; three months 14⅝ per cent; Bank Bills (sell); one-month 14 23/32 per cent; three months 14 21/32 per cent; Treasury Bills, Average tender rate of discount 14.6170 p.c. ECGD Fixed Rate Sterling Export Finance. Make up day March 30, 1990. Agreed rates for period April 25 to May 25, 1990, Scheme I: 15.90 p.c., Schemes II & III: 16.57 p.c. Reference rate for period March 1, 1990 to March 30, 1990, Scheme IV&V: 15.311 p.c. Local Authority and Finance Houses seven days' notice, others seven days' fixed. Finance Houses Base Rate 15½ from April 1, 1990. Bank Deposit Rates for sums at seven days notice 4 per cent. Certificates of Tax Deposit (Series 6); Deposit £100,000 and over held under one month 11½ per cent; one-three months 13 per cent; three-six months 13 per cent; six-nine months 13 per cent; nine-twelve months 13 per cent; Under £100,000 11½ per cent from Oct 9, 1989. Deposits withdrawn for cash 5 per cent.

JOTTER PAD

CROSSWORD

No.7,218 Set by HIGHLANDER



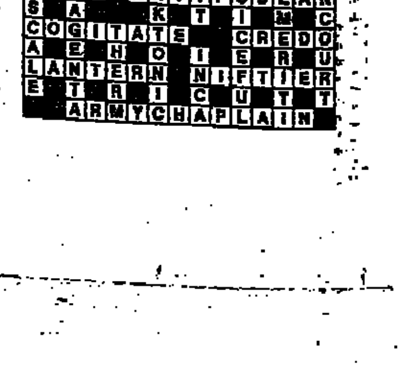
ACROSS

1 Operator is working after current increase .... (7)
5 .... despite the fact that short time is considered (7)
9 Boat caught floating platform (5)
10 Artist in copper (9)
11 Essential to bring in social worker (9)
12 Advocate putting principal news story on first page (5)
13 Join together and work very hard (5)
15 Dean perhaps takes rice to scatter (3-6)
18 Able to soak up impact from ball without missing (9)
19 Going forward, no; in reverse, yes. Curious! (5)
21 Force rider to take paths joining different levels (5)
23 Sunday shopping precinct hours are of no consequence (5-4)
25 Given furnishing (9)
26 All the family's children pronounced as planned (6)
27 Salary: spend it all over the place (7)
28 Having little interest, watched without shedding tears (3-4)

DOWN

1 Getting rid of coarse fabric (7)
2 Harvest fruit crops up again (9)
3 Intestinal problem? It is disappearing: come in! (5)
4 Exceptional tree can, in producing fruit (9)
5 Maxim's X in Rome and in Paris (5)
6 Frank said "go away" first (9)
7 Film star. Gone with the Wind holding the key (5)
8 Initially the senior lecturer is the one to take steps (7)
14 Changes floor covering in fans' entrance (9)
16 Antagonised by exploding grenade engulfing street (9)
17 Touchy over cash, stated the evidence (9)
18 Fit a truss before lifting in this way (7)
20 Bore gave up (7)
22 Opinion samplers include a race down under (5)
23 Started with his original edition (5)
24 Lift next to entrance hall (5)

Solution to Puzzle No.7,217



WORLD STOCK MARKETS

AUSTRIA

[illegible]

BELGIUM/LUXEMBOURG

[illegible]

DENMARK

[illegible]

FINLAND

[illegible]

FRANCE

[illegible]

FRANCE (continued)

[illegible]

GERMANY

[illegible]

GERMANY (continued)

[illegible]

ITALY

[illegible]

ITALY (continued)

[illegible]

NETHERLANDS

[illegible]

NORWAY

[illegible]

SPAIN

[illegible]

SWEDEN

[illegible]

SWITZERLAND

[illegible]

SOUTH AFRICA

[illegible]

JAPAN

[illegible]

AUSTRALIA (continued)

[illegible]

HONG KONG

[illegible]

AUSTRALIA

[illegible]

MALAYSIA

[illegible]

SINGAPORE

[illegible]

NOTES – Prices on this page are as quoted on the individual exchanges and are last traded prices. [illegible]

CANADA

TORONTO

2pm prices April 19

[illegible]

600 Celanese $31½ 30¾ 31½ +1⅛
10500 Cen Capital $9 8½ 8½ − ⅛
13400 CenCap A $7⅞ 7⅞ 7⅞
4000 CentFd A $6⅛ 6 6⅛
2340 C Guar Trc $9¾ 9⅛ 9⅛ − ⅛

1701 H BayMn s $7⅝ 7⅝ 7⅝ − ⅛
10318 H Bay Co $29⅞ 29⅞ 29⅞ − ⅛
36904 Imasco L $35⅝ 35 35 − ⅝
35321 Imp Oil A $58¼ 56¾ 58¼ − 1½
151987 Inco $29 28½ 28⅝ − ¼

2100 Power Fin $18 17¾ 17¾ − ½
4548 Provigo $9⅜ 9¼ 9¼ − ¼
450 Que Tel $14¾ 14¾ 14¾ − ⅛
85600 Ranger $7 6⅞ 7
1700 Rayrock I $9⅝ 9⅜ 9⅛ − ⅝
300 Rd Stenns S $30⅞ 30⅞ 30⅞ − 1⅛

500 Weston $38 38 38 − ½
1000 Woodwd A 165 165 165 − 5

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INDICES

NEW YORK

DOW JONES	Apr 18	Apr 17	Apr 16	Apr 12	1990 HIGH	1990 LOW	Since compilation HIGH	Since compilation LOW
♠Industrials	2733.11	2765.77	2763.06	2751.80	2810.15 (2/1)	2543.24 (30/1)	2810.15 (2/1/90)	41.22 (2/7/32)
Home Bonds	89.91	90.19	90.34	90.37	93.04 (3/1)	89.91 (18/4)	—	—
Transport	1172.12	1185.63	1188.66	1191.50	1201.10 (2/1)	1031.83 (30/1)	1532.01 (5/9/89)	12.32 (8/7/32)
Utilities	211.96	213.72	213.15	212.78	236.23 (2/1)	211.96 (18/4)	236.23 (2/1/90)	10.50 (8/4/32)

♠Day's High 2775.68 (2774.77) Low 2722.75 (2738.29)

STANDARD AND POOR'S

	Apr 18	Apr 17	Apr 16	Apr 12	1990 HIGH	1990 LOW	Since compilation HIGH	Since compilation LOW
Composite ‡	340.72	344.68	344.74	344.34	359 69 (2/1)	322.98 (30/1)	359.80 (9/10/89)	4.40 (1/6/32)
Industrials	395.81	400.29	400.42	399.96	411.20 (2/1)	371.92 (30/1)	411.20 (2/1/90)	3.62 (21/6/32)
Financial	28.06	28.40	28.25	28.28	31.87 (3/1)	27.15 (6/4)	35 24 (9/10/89)	8.64 (1/10/74)
NYSE Composite	186.93	188 91	188.94	188.80	198.00 (2/1)	178 43 (30/1)	199.34 (9/10/89)	4.46 (25/4/42)
Amex Mkt. Value	353.22	354.72	356.98	357.88	382.45 (5/1)	345.50 (30/1)	397.03 (10/10/89)	29.31 (9/12/72)
NASDAQ Composite	431.52	435.42	436.70	436.31	460.90 (3/1)	410.72 (30/1)	485.73 (9/10/89)	54.87 (31/10/72)

	Apr 6	Mar 30	Mar 23	year ago (approx.)
Dow Industrial Div Yield	4.03	4.06	4.06	3 62

	Apr 11	Apr 4	Mar 28	year ago (approx)
S & P Industrial div. yield	3.04	3.05	3.04	3.24
S & P Indl. P/E ratio	15.13	15.09	15.07	12 79

NEW YORK ACTIVE STOCKS

Wednesday	Stocks traded	Closing price	Change on day
Philip Morris	2,354,300	42⅝	− ⅛
Tandem Comp.	1,975,000	24¼	+ 1⅛
Gen. Motors	1,569,400	46	+ ⅛
IBM	1,529,500	109¾	− 1⅛
Chase Manhtn.	1,453,700	27¼	− ½
Gen. Electric	1,358,500	66¼	− ⅝
Harcourt B.	1,280,200	3¼	+ ⅛
Utd. Telecom	1,240,900	39¼	− ⅝
Citicorp	1,215,500	24	− ½
Ford Motor	1,211,700	48	+ ⅞

TRADING ACTIVITY

† Volume (Millions)	Apr 18	Apr 17	Apr 16
New York	147 130	127.990	142.810
Amex	11 675	10.957	11.613
NASDAQ	149 750	136.453	124.651
Issues Traded	1,996	1,991	1,995
Rises	471	656	705
Falls	1,052	838	766
Unchanged	473	497	524
New Highs	17	20	41
New Lows	67	52	35

CANADA

TORONTO	Apr 18	Apr 17	Apr 16	Apr 12	1990 HIGH	1990 LOW
Metals & Minerals	2971.50	2985.20	3029.50	3061.60	3453.05 (4/1)	2921.03 (23/2)
Composite	3476.50	3513.40	3549.30	3561.20	4009.47 (3/1)	3476.50 (18/4)
MONTREAL Portfolio	1782.64	1803.83	1819.52	1829.33	2060.90 (3/1)	1782.64 (18/4)

Base values of all indices are 100 except NYSE All Common – 50; Standard and Poor's – 10; and Toronto Composite and Metals – 1000. Toronto indices based 1975 and Montreal Portfolio 4/1/83. † Excluding bonds. ‡ Industrial, plus Utilities, Financial and Transportation. (c) Closed. (u) Unavailable.

	Apr 19	Apr 18	Apr 17	Apr 16	1990 HIGH	1990 LOW
AUSTRALIA						
All Ordinaries (1/1/80)	1495 0	1501.4	1499.2	(c)	1713 7 (12/1)	1495.0 (19/4)
All Mining (1/1/80)	748.0	760 6	762.5	(c)	860 8 (5/1)	748.0 (19/4)
AUSTRIA						
Credit Aktien (30/12/84)	657 81	667.92	673 98	(c)	703.29 (19/3)	526.59 (2/1)
BELGIUM						
Brussels SE (1/1/80)	6122.68	6122.64	6142.13	(c)	6599.43 (12/1)	5568.16 (26/2)
DENMARK						
Copenhagen SE (3/1/83)	360.32	363.79	364 40	(c)	380 47 (28/3)	358 77 (2/1)
FINLAND						
Unitas General (1975)	592.2	596.9	601.5	(c)	677.3 (23/1)	590.5 (2/1)
FRANCE						
CAC General (31/12/82)	544 45	563.79	553 07	(c)	554.7 (5/1)	482.94 (26/2)
CAC 40 (31/12/87)	2097 12	2098 68	2126.34	(c)	2126.34 (17/4)	1800.32 (26/2)
GERMANY						
FAZ Aktien (31/12/58)	793 40	802.56	809 73	(c)	830 92 (3/4)	732.71 (24/1)
Commerzbank (1/12/53)	2340 8	2327.6	2349.5	(c)	2414.0 (3/4)	2151.5 (24/1)
DAX (30/12/87)	1878.87	1889 76	1914.35	(c)	1968.55 (30/3)	1756.41 (24/1)
HONG KONG						
Hang Seng Bank (31/7/64)	3067.67	3052.35	3020.44	(c)	3067.67 (19/4)	2738.24 (1/2)
IRELAND						
ISEQ Overall (4/1/88)	1707.37	1712.77	1717 95	(c)	1893.10 (22/1)	1707.37 (19/4)
ITALY						
Banca Com. Ital. (1972)	707.00	713.01	713.06	(c)	713 06 (17/4)	646.73 (26/2)
JAPAN						
Nikkei (16/5/49)	29945.41	29249 06	28461 60	28463 18	38712.88 (4/1)	28002.07 (2/4)
Tokyo SE (Topix) (4/1/68)	2213 49	2167 96	2128.57	2129 77	2867.70 (4/1)	2058 82 (5/4)
2nd Section (4/1/68)	3551.43	3524.56	3507.80	3518.83	4284 68 (9/2)	3313 92 (5/4)
MALAYSIA						
KLSE Composite (4/4/86)	546 47	550.39	553 26	553 18	622.20 (20/2)	532.04 (9/4)
NETHERLANDS						
CBS Ttl Rtn.Gen (End 1983)	258 4	259 7	258 2	(c)	269 0 (3/1)	240.1 (26/2)
CBS All Shr (End 1983)	197.2	198.6	197 6	(c)	206.3 (3/1)	184 2 (26/2)
NORWAY						
Oslo SE (2/1/83)	788.24	796.29	794 80	(c)	845 40 (16/3)	701 67 (2/1)
PHILIPPINES						
Manila Comp (2/1/85)	1084.67	1094.52	1096.77	1096 02	1160 70 (21/3)	1014.09 (5/3)
SINGAPORE						
SES All-Singapore (2/4/75)	411.97	420.58	419.31	419 80	443.34 (6/2)	411.97 (19/4)
SOUTH AFRICA						
JSE Gold (28/9/78)	1833 04	1803 0	1801.0	(c)	2230.0 (26/1)	1803.0 (18/4)
JSE Industrial (28/9/78)	2873 04	2871 0	2873 0	(c)	3211.0 (6/2)	2795 0 (2/1)
SOUTH KOREA**						
Korea Comp Ex (4/1/80)	768.31	781.53	796.56	777 00	928 82 (4/1)	768.31 (19/4)
SPAIN						
Madrid SE (30/12/85)	275.66	276 49	269.91	263 74	302.85 (4/1)	248.17 (2/4)
SWEDEN						
Affärsvärlden Gen. (1/2/37)	1159 60	1153.50	1146.90	(c)	1317 88 (12/1)	1127.20 (2/4)
SWITZERLAND						
Swiss Bank Ind. (31/12/58)	748 7	752.3	752.6	(c)	787 2 (11/1)	737 6 (27/3)
TAIWAN**						
Weighted Price (30/6/66)	8830.57	8994 40	9291 61	9419.32	12495.34 (10/2)	8830.57 (19/4)
THAILAND						
Bangkok SET (30/4/75)	834 99	835 90	843.97	843.79	918.67 (5/1)	760.39 (7/2)
WORLD						
M.S. Capital Intl (1/1/70)	(u)	484.3	482.6	482.8	571 0 (4/1)	468.3 (2/4)

**Saturday Apr.14 Taiwan Weighted Price 9436 12 Korea Comp Ex 793 14

‡ Subject to official recalculation.

δBase values of all indices are 100 except Brussels SE, ISEQ Overall and DAX – 1,000, JSE Gold – 255.7, JSE Industrials – 264.3 and Australia All Ordinary and Mining – 500; (c) Closed. (u) Unavailable

TOKYO - Most Active Stocks

Thursday April 19 1990

	Stocks Traded	Closing Prices	Change on day		Stocks Traded	Closing Prices	Change on day
Nippon Steel	84.9m	611	+20	Nippon Mining	28.7m	929	+86
Mitsui Shpbldg	55.6m	945	+60	Sasebo	23 3m	1,010	+82
NKK	43.4m	600	+53	Kawasaki Steel	19 0m	605	+35
MHI	42.5m	968	+26	Hitachi Zosen	18.3m	845	+66
Isuzu	40.5m	939	+69	KHI	16 9m	860	+60

3pm prices April 19

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

– A – A – A –

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
37½	27	AAR	.48	1.9	15	1026	27¼	d25	26¼	– 2⅝
9¾	8½	ACM n	1.01	12		86	8⅞	8¾	8¾	– ⅛
11⅝	10⅜	ACMIn	1.26	12		485	10½	10⅜	10⅜	
9⅝	7¼	ACM M n	1.01	13		417	7⅞	7⅝	7⅝	– ⅛
12⅛	11⅛	ACMMM				180	11⅝	11½	11⅝	
11½	9⅜	ACM Sc	1.26	12		1138	10¼	10⅛	10¼	+ ⅛
9⅜	8⅛	ACMSp	1.01	12		669	8⅝	8½	8⅝	+ ⅛
22⅝	13⅛	AL Lab	.16	.7	21	281	21⅞	21½	21¾	
4⅛	3	AMCA	.12e	4.0	38	13	3⅛	3	3	
6⅛	2½	AM Intl			8	1011	2⅝	2½	2½	
22¼	14⅜	AM In pf	2	15		105	14½	d13⅞	13½	– ⅞
107¼	52½	AMR			9	5739	64⅞	63¾	64⅛	– ⅛
27	25	ANR pf	2.67	10.		1	25⅝	25⅝	25⅝	
5⅛	3⅛	ARX				61	3⅝	3½	3½	– ¼
72¼	39	ASA	3a	5.8		701	52⅛	51⅝	51⅝	– ¼
70⅛	53⅝	AbtLab	1.68	2.5	17	4070	68½	67¾	68⅛	– ⅛
17¼	11¼	Abitibi g	.60			1	13	13	13	
13	8⅞	AcmeC	.40	4.2	11	20	9⅝	9⅝	9⅝	
39½	28⅝	Acuson			22	167	35½	35	35	– ⅛
16½	13⅛	AdaEx	2.06e	13		67	15⅞	15¾	15¾	
15⅜	7⅝	Adobe				108	12⅛	12	12⅛	+ ⅛
10½	6⅞	AMD			19	1426	9⅜	8⅝	8¾	
35	28¾	AMD pf	3	9.5		165	31½	31½	31½	
10⅛	4½	Advest	.16	3.6	8	182	4½	4⅜	4½	– ⅛
62½	48⅝	AetnLf	2.76	5.7	9	577	49¼	48½	48⅝	– ½
14	9⅞	AllPb	.24	2.3		701	10½	10⅜	10⅜	– ⅛
		[illegible]								

Continued on Page 49

NYSE COMPOSITE PRICES

Continued from previous Page

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 percent or more has been paid, the year's high-only range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration.

a-dividend also xtra(s). b-annual rate of dividend plus stock dividend. c-liquidating dividend. cld-called. d-new yearly low. e-dividend declared or paid in preceding 12 months. g-dividend in Canadian funds, subject to 15% non-residence tax. i-dividend declared after split-up or stock dividend. j-dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k-dividend declared or paid this year, an accumulative issue with dividends in arrears. n-new issue in the past 52 weeks. The high-low range begins with the start of trading. nd-next day delivery. P/E price-earnings ratio. r-dividend declared or paid in preceding 12 months, plus stock dividend. s-stock split. Dividends begin with date of split. sls-sales. t-dividend paid in stock in preceding 12months, estimated cash value on ex-dividend or ex-distribution date. u-new yearly high. v-trading halted. vi-in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd-distributed. wi-when issued. ww-with warrants. x-ex-dividend or ex-rights. xdis-ex-distribution. xw-without warrants. y-ex-dividend and sales in full. yld-yield. z-sales in full.

AMEX COMPOSITE PRICES

3pm prices April 19

NASDAQ NATIONAL MARKET

3pm prices April 19

AMERICA

Dow stabilises after early decline in bonds

Wall Street

ANOTHER early fall in the bond market sent equities lower once again but then both shares and bonds stabilised and recovered some of their losses by midsession, *writes Janet Bush in New York.*

At 2pm, the Dow Jones Industrial Average was quoted 5.63 lower at 2,727.25 on moderately active volume of 103m shares, having stood more than 13 points lower in mid-morning. On Wednesday, the Dow had fallen 32.89 points to 2,732.88, following the collapse of bond prices in spite of news of a sharp narrowing in the US merchandise trade deficit in February.

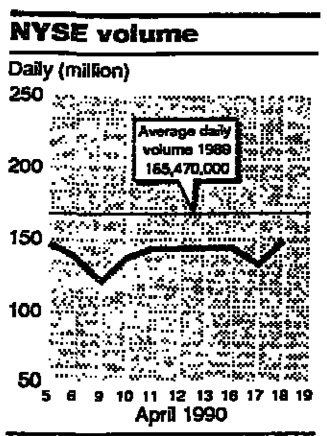
Both stock and bond markets were hampered by the dollar's slide against the yen. At midsession, the dollar was quoted at Y156.75 compared with an early high in New York of Y158.50. The markets also failed to respond positively to Tokyo's sharp rise over the last two days and remained concerned that inflationary pressures in the US economy would induce the US Federal Reserve to tighten monetary policy at some stage.

The Treasury market had been down by around ¾ point early in the session, continuing the collapse in prices on Tuesday and Wednesday, but the benchmark long bond had recovered by midsession to stand around $\frac{1}{16}$ lower for a yield of 8.85 per cent.

The market continued to dwell on the 0.5 per cent jump in consumer prices in March reported on Tuesday, which was higher than anyone had expected and came in spite of a significant drop in fuel costs.

Corporate earnings reports continued to flood the market yesterday. Among companies reporting was Digital Equipment which jumped $1¾ to $81⅞ on news that it had net income in its fiscal third quarter of 20 cents a share, even after a $150m pre-tax restructuring charge. These results exceeded forecasts.

NYSE volume



Comdisco plunged $8 to $18⅝ after the company said that it expected its second quarter earnings to be as much as 25 per cent to 30 per cent lower than a year ago when it made 60 cents a share.

Oregon Steel Mills added $1¾ to $37¾ after reporting net income of 89 cents a share in the first quarter compared with 59 cents a year earlier.

Dayton Hudson fell $⅞ to $69⅞ following news of its agreement to acquire the Marshall Field's department store chain for more than $1bn from the US subsidiary of Britain's BAT Industries. BAT was up $$\frac{1}{16}$ to $11⅞ on the American Stock Exchange.

American Express fell $½ to $28⅝ following its announcement of a $1.50 a share loss due to a $787m charge against first quarter earnings taken by Shearson Lehman Hutton, its securities subsidiary.

Charles Schwab, the discount broker, fell $1 to $14⅞ after reporting net income of 14 cents a share, down slightly from a year ago and below expectations. Silicon Graphics slumped $4⅞ to $30¼ despite the fact that its net income surged 183 per cent from a year earlier.

Canada

TORONTO stocks fell across the board at midsession as investors became increasingly despondent about the market's outlook. The composite index plunged 49.3 or 1.4 per cent to 3,427.1, a new low for 1990, on volume of 18.01m shares. Declines led advances 447 to 101.

Among active stocks, Canadian Imperial dropped C$1 to C$24¼ and Seagram fell C$2⅞ to C$89⅛. Oil shares dropped as the crude price weakened, with Saskatchewan falling C$⅛ to C$12⅞ and Total Petroleum losing C$⅛ to C$31½. Maple Leaf Gardens dived C$4 to C$33 on news that its majority shareholder, Harold Ballard, who died recently, left his stake to a charitable trust fund.

EUROPE

New York weakness leaves bourses subdued

WEAKNESS on Wall Street counted for more than Tokyo's recovery in influencing continental sentiment yesterday, and bourses were mostly in a subdued mood, *writes Our Markets Staff.*

FRANKFURT closed above its intrasession lows, the DAX index ending 10.89, or 0.6 per cent, lower at 1,878.87 after a fall of 9.10, or 1.1 per cent, in the FAZ at midsession. Volume fell from DM6bn to DM5.5bn.

Wall Street's weakness mixed with ongoing nervousness about German monetary union. Blue chips led the market lower, as Siemens dropped DM8 to DM762, Daimler DM13 to DM899 and Deutsche Bank DM4.50 to DM787.

Siemens replaced Mannesmann at the top of the individual volumes chart, in turnover of DM593m. Mannesmann stayed high on the list, third with DM464m and falling another DM2 to DM367, although a number of its followers said worries over its Brazilian interests had been overstated.

Signs of resilience elsewhere were exaggerated by a thin market. Among the insurers, Allianz rose DM28 to DM2,470 and Munich Re DM22 to DM2,252, but it took only small buy orders to achieve this effect. In chemicals, BASF was steady at DM311 after raising its dividend to DM13, plus a DM1 bonus, from DM12.

PARIS showed resistance in the face of a weak bond market, Wall Street's declines and profit-taking before the end of the monthly trading account today, regaining most of its early losses to close only slightly lower on international buying. The CAC 40 index ended 1.56 down at 2,097.12, after falling to 2,072.77 earlier.

Turnover was estimated as less than the previous day's level at FFr2.2bn, supported by volume in CGE, which dropped FFr13 to FFr617 with 390,100 shares traded after it announced details of a FFr5.6bn convertible bond.

The retail sector attracted interest, with Docks de France gaining FFr219 to FFr4,119 after its recent underperformance, and CFAO rising FFr15 to FFr650 after Tuesday's news of the sale of La Ruche Meridionale, the retail group, to Casino. Volume in CFAO was relatively heavy, with 61,760 shares traded.

Peugeot gained FFr12 to FFr899 on 287,400 shares after the previous day's results. Analysts were encouraged by the company's less pessimistic forecasts for the current year. GTM-Entrepose lost FFr40 to FFr1,440 on profit-taking, after rising on the previous day's news of an increase in earnings and a bullish statement on its order books.

MILAN eased as professionals squared positions, anticipating a volatile market in the next two weeks when several national holidays occur and in the run-up to the May local elections. But local brokers expected the market to regain its strength after the elections, as companies paid out dividends for 1989 and the publicity for the World Cup series started.

Volume shrank as international and domestic investors retreated to the sidelines. The Comit index fell 6.01 to 707. Olivetti featured, closing L7 higher at L7,250 and rising to L7,285 in the after-market on continued speculation of a link-up with Philips, the Dutch group, and rumours that the company's 1989 results, due on April 27, would not be as dire as analysts expected. Montedison also bucked the general trend, adding L18 to L2,020 at the close and reaching L2,038 after-hours.

AMSTERDAM was disappointed with transport group Nedlloyd's 1989 profits, which were boosted by extraordinary items, and the company's forecasts that 1990 operating profits would be flat. The stock fell Fl 11.20 to Fl 95.90. In the same sector, Internatio-Mueller was stable at Fl 96 before reporting a 27 per cent rise in 1989 profit to Fl 56.1m after the market closed. The CBS tendency index dropped 1.4 to 118.8 in thin business.

STOCKHOLM was led higher by the engineering stock, Alfa Laval, which was the subject of a favourable US magazine report. Its free B shares rose SKr3 to SKr220. Interest in Ericsson remained strong although the free B shares fell SKr3 to SKr911 after hitting a high of SKr918. The weighted Affärsvärlden General index rose 6.0 to 1,159.5.

ZURICH bit on one news item, and seemed to ignore another. Ascom, the telecoms company, rose SFr50 to SFr3,050 after it said it planned to eliminate 1,000 jobs in Switzerland over the next two years. In foods, Jacobs Suchard bearers fell SFr50 to SFr6,900, although it forecast a sharp rebound in profits this year. The Crédit Suisse index fell 4.0 to 588.3 in light trading.

MADRID attracted profit-taking after its recent strength, with the general index losing 0.83 to 275.66 by the end of pit trading and slipping to 274.33 by the close of the continuous session. Banesto edged up Pta5 to Pta3,800, with one block of 213,500 shares traded. The bank signed a co-operation agreement with Banco Ambrosiano Veneto of Italy on Wednesday.

SOUTH AFRICA

STRONGER GOLD shares led Johannesburg higher after a rise in the bullion price to about $377, but trading stayed thin. The JSE overall index rose 14 to 3,112. Vaal Reefs firmed R6 to R361 but De Beers fell 30 cents to R85.90.

ASIA PACIFIC

Nikkei rises confidently as volume nearly doubles

Tokyo

CONFIDENCE came back to Japanese equities yesterday, as the yen edged up against the dollar. Turnover virtually doubled and a wave of buying took the Nikkei average above 30,000 at one stage, *writes Michiyo Nakamoto in Tokyo.*

Riding on Wednesday's success, the market took off to a flying start, posting a 400-point gain in the first 15 minutes of trading and keeping up the momentum all day.

After moving between a low of 29,296.25 and a high of 30,034.45 in mid-afternoon, the Nikkei closed 696.35 up at 29,945.41. Advances led declines by 855 to 141 with 103 unchanged. Turnover rose from 488m to 968m shares. The Topix index of all listed stocks advanced 45.53 to 2,213.49 and, in London, the ISE/Nikkei 50 index rose 7.00 to 1,720.39.

The yen's strong advance against the dollar, on the overnight New York market and during the day in Tokyo, had buoyed investor confidence in both bonds and equities, said Mr Shoin Yokoyama at Crédit Suisse Investment Advisory.

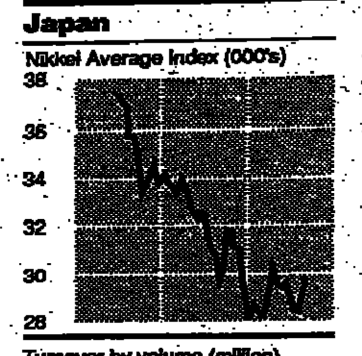
This strength was the more uplifting because investors had expected that a reduction in the US trade deficit would lead to buying of the dollar. They were increasingly convinced that the worst was over, he said, and that a bottom had been reached, at least for now.

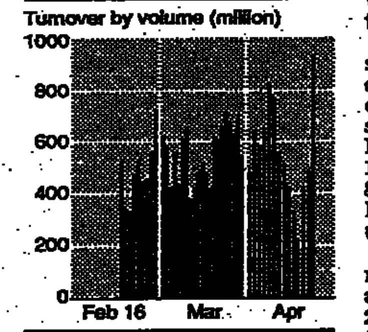
There was widespread talk that the authorities were encouraging Japanese institutions to unload their US treasury holdings and support the yen. In the recent past, faced with slumping markets at home, the institutions have been persistent sellers of US treasuries. "You have to take your profits where you find them," said one foreign trader.

Yesterday's buying spree was led by issues supported by domestic demand, particularly the big steels and shipbuilders. Interest in these was due to their bargain prices and to the yen's recovery; the Stock Exchange suspended trading in some stocks to restore order.

Nippon Steel closed Y20 higher at Y611, while Mitsubishi Heavy Industries added Y26 to Y968. Electricals succumbed to profit-taking as Sony lost Y90 to Y8,310, NEC Y40 to Y2,080 and Pioneer Y120 to Y5,950. "It's not their market," said one salesman. "The market's all of a sudden gone domestic."

Japan





Osaka saw similar enthusiasm supporting a gain in the OSE average of 669.65 to 31,732.79. Volume rose from 42.7m to 59.6m shares.

Roundup

PERFORMANCE in the region was mixed yesterday, with depression out of fashion in Hong Kong, South Korea fearful, and Taiwan demonstrating its volatility on the downside.

HONG KONG rose for the fifth day in a row on continued overseas demand for blue chips, but the market was restrained by declines in banks and utilities. The Hang Seng index rose 15.32 to 3,067.67. Turnover grew to HK$1.83bn, the highest level since early February, from Wednesday's HK$1.55bn.

Hongkong Bank dropped 15 cents to HK$6.15 following news late on Wednesday that first quarter profits at its US subsidiary, Marine Midland Bank, plunged 85 per cent to US$6m.

TAIWAN fell for the sixth consecutive session but came off the day's lows on last-minute buying. The weighted index shed 163.83 to 8,830.57 after a low of 8,652.57. Volume rose to NT$84bn from NT80bn. The market was still depressed by weakness in the banking sector due to the Government's current sale of part of its stakes in three commercial banks, which will drain nearly NT$26bn from the market.

SEOUL fell across the board as investors sold to settle stock transactions. The composite index lost 13.22 to 768.31, the lowest level since November 1988, on weak volume of 7.8m shares valued at 136.7bn won. Dealers feared that the market would face a serious crisis if the index went below 750.

NEW ZEALAND fell at the start, following Wall Street's drop, but recovered thanks to offshore buying of leading stocks and Tokyo's gains. The Barclays index rose 8.94 to 1,727.61. Turnover improved to 8.6m shares valued at NZ$17.8m from 7.6m shares valued at NZ$12.3m.

Goodman Fielder Wattie recovered 7 cents to NZ$1.95 and Brierley Investments rose 2 cents to NZ$1.61, after news that it planned to bid for a majority interest in the state-owned Telecom Corp.

AUSTRALIA was dragged down by Wall Street and by a rising local dollar, which weighed on mining stocks. But Tokyo's rise helped pull prices off their lows, and the All Ordinaries index rebounded from 1,490.9 to close 6.4 lower at 1,495.0. Turnover rose to 75m shares and A$205m from 66m and A$174m. CRA, ex dividend of 38 cents a share, shed a net 12 cents to A$11.05.

SINGAPORE slipped as stop-loss selling hit a thin market. Turnover fell to 31.7m shares, worth S$64.8m, from from Tuesday's 34.2m shares, worth S$80.8m. The Straits Times Industrial index lost 5.09 to 1,529.02.

KUALA LUMPUR also fell as turnover shrank to 20.5m shares from 23.7m; the composite index eased 3.92 to 546.47.

BOMBAY fell on end-of-account considerations, the BSE index losing 14.61 to 759.15 after two days of rises.

Switzerland begins to catch up

Jacqueline Moore examines European turnover figures for March

MARCH WAS a stable month for European bourses in terms of turnover, with only Switzerland making a significant improvement. West Germany remained extremely busy, although some other continental markets showed signs of attracting a larger slice of the investment action.

Most bourses again decided that Tokyo's wild swings were of interest mainly to the Far East. There was some nervousness, but trading volumes were steady throughout most of Europe. Slight gains over February's levels in West Germany, France and the UK can be attributed to the fact that there were two more trading days last month.

West Germany was very active once again, as the opening up of East Germany continued to occupy investors' minds. Turnover last month rose by 5.7 per cent over February – a huge increase compared with the DM63.9bn recorded in March 1989. In dollar terms, German turnover reached $132.2bn, more than three times as high as in the UK market, and nearly seven times bigger than in France.

EUROPEAN EQUITIES TURNOVER
Monthly total in local currencies (bn)

Bourse	Dec 1989	Jan 1990	Feb 1990	Mar 1990	US $bn
Belgium	58.7	52.2	67.2	60.8	1.7
France	131.7	129.1	103.8	107.0	18.9
Germany	157.1	224.4	211.0	223.0	132.2
Italy	13,640	21,228	14,377	15,913	12.8
Netherlands	10.6	18.3	12.4	12.4	6.5
Spain	443.4	497.0	381.1	368.4	3.4
Switzerland	15.4	20.4	20.0	24.4	16.3
UK	27.1	30.7	22.8	23.8	39.2

Volumes represent purchases and sales. Swiss and Belgian data estimated. Italian data adjusted to include off-market trading. Some figures may be revised. Source. County NatWest WoodMac.

March was the month of the East German elections: turnover slipped before the March 18 poll, but picked up again immediately afterwards. On the 19th, for example, turnover more than doubled from the previous trading day's level to DM13.9bn. Frankfurt's key indices, the FAZ and the DAX, hit records at the end of the month, with active domestic and Japanese buying.

Switzerland began to catch up with the pace of trading in West Germany and enjoyed its busiest month since July last year. Turnover shot up by 22 per cent in March from February's figure. "Switzerland had been extremely *feeble* [in terms of volume] and weak in terms of price, but domestic and foreign buying last month helped turnover to rise to more normal levels," says Mr James Cornish of County NatWest.

The market also responded to specific news stories, which generated volume but did not move the stock index significantly. For example, a rights issue announced by Brown Boveri, the engineering company, on March 22 caused selling of the stock, followed by a wave of buying at the cheaper price level, says one observer. Other stocks attracting active interest included those in the mechanical engineering and building sectors, which gained from their prospects in East Germany.

France looked rather dull in March, but turnover nevertheless rose 3.1 per cent above February's level. Foreigners had not yet rediscovered the market in great numbers, choosing to concentrate on West Germany, before the Bank of France cut its intervention rate on April 2.

Turnover in Italy picked up as the big Italian unit trusts took some money out of the market, while some foreign buying interest returned, according to Mr Cornish.

Belgium, February's winner in volume terms, fell 9.5 per cent in March, but remained lively compared with December and January.

FT-ACTUARIES WORLD INDICES

Jointly compiled by The Financial Times Limited, Goldman, Sachs & Co., and County NatWest/Wood Mackenzie in conjunction with the Institute of Actuaries and the Faculty of Actuaries

NATIONAL AND REGIONAL MARKETS	WEDNESDAY APRIL 18 1990						TUESDAY APRIL 17 1990			DOLLAR INDEX		
Figures in parentheses show number of stocks per grouping	US Dollar Index	Day's Change %	Pound Sterling Index	Local Currency Index	Day's change % local currency	Gross Div. Yield	US Dollar Index	Pound Sterling Index	Local Currency Index	1990 High	1990 Low	Year ago (approx)
Australia (81)	134.88	+0.4	122.12	116.94	+0.2	5.92	134.28	121.80	116.73	158.31	133.38	131.23
Austria (19)	279.60	−0.2	253.15	242.90	−0.6	1.10	280.25	254.21	244.45	285.63	193.15	122.45
Belgium (61)	148.36	−0.1	134.33	126.77	−0.4	4.55	148.52	134.71	127.27	160.02	132.11	135.70
Canada (120)	135.78	−0.5	122.94	114.30	−1.0	3.52	136.47	123.79	115.43	153.81	135.78	135.85
Denmark (36)	248.26	−0.4	224.77	215.08	−0.9	1.50	249.21	226.05	217.01	260.82	238.69	177.54
Finland (26)	136.36	+0.4	123.46	113.74	+0.0	2.41	135.87	123.24	113.72	152.29	130.39	157.06
France (125)	165.21	−0.7	149.58	145.64	−1.0	2.72	166.43	150.96	147.18	166.43	141.69	122.15
West Germany (94)	134.35	−0.7	121.64	116.78	−0.9	1.85	135.23	122.66	117.90	137.71	122.05	88.49
Hong Kong (48)	125.92	+0.8	114.01	125.99	+0.8	4.94	124.87	113.26	124.96	125.92	112.24	133.45
Ireland (17)	188.96	+0.2	171.09	166.15	−0.3	2.59	188.60	171.07	168.61	198.57	181.49	150.50
Italy (96)	103.73	+0.6	93.92	95.13	+0.2	2.42	103.12	93.53	94.91	103.73	91.85	83.26
Japan (454)	132.70	+2.5	120.15	133.46	+2.0	0.62	129.45	117.42	130.84	197.26	124.40	188.40
Malaysia (35)	215.80	−0.6	195.39	226.90	−0.7	2.38	217.02	196.85	228.39	245.32	208.65	176.34
Mexico (13)	410.55	−0.2	371.72	1250.35	−0.2	0.41	411.54	373.29	1253.34	411.54	324.53	172.31
Netherland (43)	141.94	+0.8	128.51	121.98	+0.5	4.63	140.84	127.75	121.36	145.66	130.43	122.22
New Zealand (17)	61.84	−0.5	55.99	56.74	−0.5	7.73	62.12	56.35	57.05	75.36	60.31	68.07
Norway (25)	231.52	+0.6	209.62	204.65	+0.2	1.63	230.03	208.65	204.19	245.90	202.34	198.39
Singapore (26)	190.66	+0.4	172.62	165.04	+0.4	1.82	189.99	172.33	164.42	199.38	179.70	154.79
South Africa (60)	184.58	+0.7	167.12	159.79	−0.1	3.70	183.30	166.27	159.95	251.39	180.87	143.22
Spain (42)	153.32	+2.9	138.82	123.18	+2.3	4.31	149.02	135.17	120.40	165.19	132.84	155.04
Sweden (35)	185.10	+2.1	167.59	166.81	+1.6	2.36	181.35	164.49	164.17	206.95	173.89	156.00
Switzerland (65)	91.58	+0.1	82.91	84.22	−0.3	2.33	91.48	82.98	84.51	99.12	88.75	77.28
United Kingdom (306)	146.71	−0.1	132.83	132.83	−0.3	4.97	146.90	133.25	133.25	164.31	144.69	148.29
USA (537)	137.79	−1.2	124.76	137.79	−1.2	3.48	139.41	126.45	139.41	145.40	130.61	124.94
Europe (990)	141.43	+0.0	128.05	124.88	−0.3	3.54	141.48	128.33	125.28	146.66	135.57	121.59
Nordic (122)	189.24	+0.8	171.34	160.84	+0.4	1.93	187.71	170.26	160.28	201.89	185.01	154.65
Pacific Basin (661)	132.49	+2.4	119.96	132.40	+1.9	0.96	129.44	117.41	129.96	192.75	124.63	183.74
Euro – Pacific (1651)	136.46	+1.3	123.55	130.08	+0.9	2.05	134.66	122.14	128.87	174.18	130.35	158.91
North America (657)	137.57	−1.1	124.56	136.25	−1.1	3.48	139.13	126.20	137.83	145.78	131.02	125.50
Europe Ex. UK (684)	136.21	+0.0	123.33	119.43	−0.3	2.71	136.18	123.52	119.82	136.21	124.81	104.90
Pacific Ex. Japan (207)	129.24	+0.5	117.01	116.83	+0.3	5.18	128.62	116.67	116.44	139.32	126.77	127.84
World Ex. US (1844)	137.06	+1.3	124.10	130.17	+0.9	2.11	135.35	122.77	129.07	173.77	131.30	157.96
World Ex. UK (2075)	135.23	+0.5	122.43	132.59	+0.2	2.34	134.61	122.10	132.34	162.00	130.80	144.77
World Ex. So. Af. (2321)	135.94	+0.4	123.08	132.38	+0.1	2.58	135.40	122.82	132.19	161.84	131.95	145.08
World Ex. Japan (1927)	139.45	−0.6	126.26	132.19	−0.8	3.57	140.31	127.27	133.19	145.52	135.25	124.36
The World Index (2381)	136.24	+0.4	123.35	132.57	+0.1	2.59	135.69	123.08	132.39	162.05	132.25	145.07

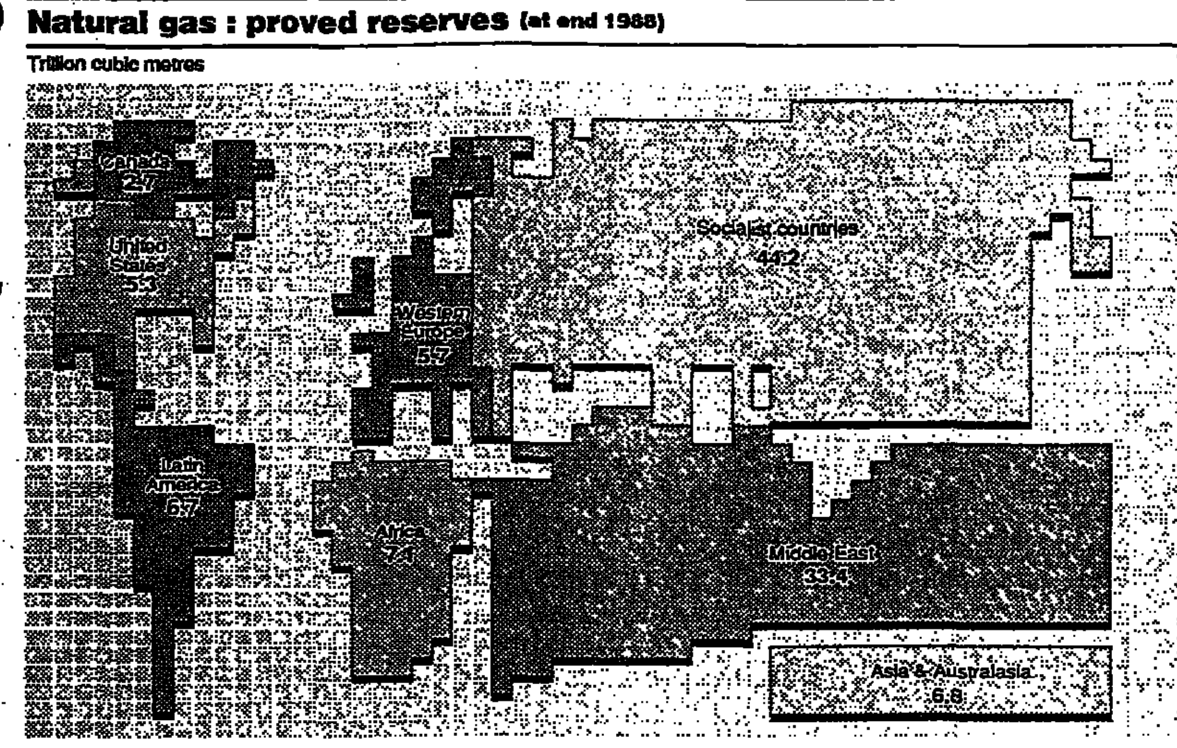
Constituent changes 19/4/90: Insertion: Den Norske Bank (Norway). Deletions: Bergen Bank and Den Norske Creditbank (both Norway).
Latest prices were unavailable for this edition.

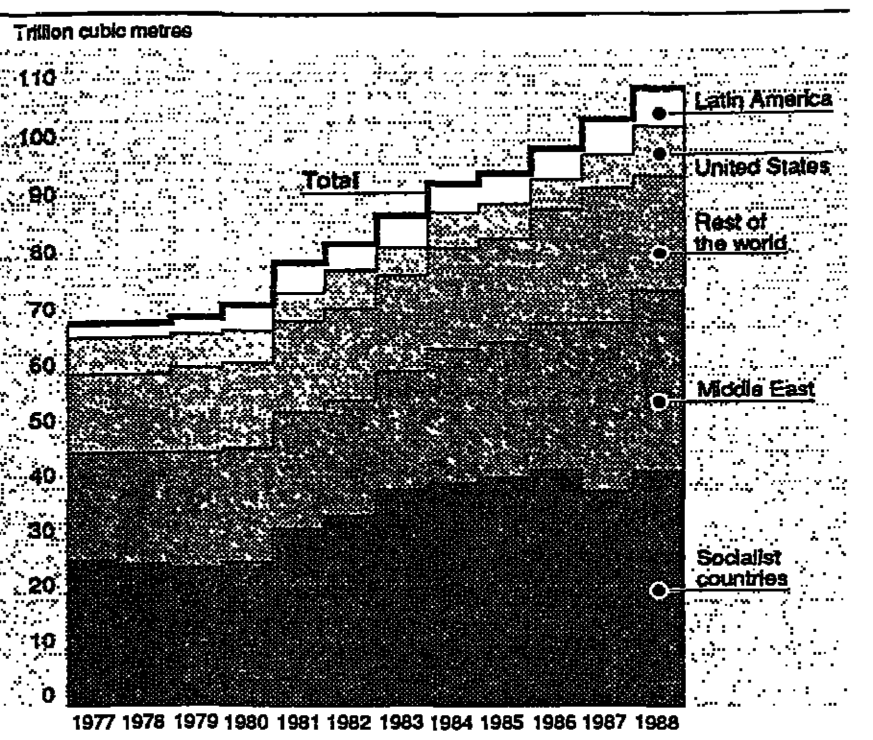
SECTION IV

FINANCIAL TIMES SURVEY

Prospects for the international gas industry are looking increasingly bright, even though there are longer-term uncertainties for many sections of the industry, as **Steven Butler** explains here.

Natural gas : proved reserves (at end 1988)





Source : BP

■ The Soviet Union and the Middle East dominate the world map of proven reserves of natural gas. Together, they account for nearly two-thirds of the world's reserves.

■ Natural gas reserves have shown a steady upward trend through the last decade, with most of the growth being registered in eastern Europe – predominantly, the Soviet Union.

Confidence is rising

THE GAS INDUSTRY

OPTIMISM has rarely run so high in the worldwide natural gas industry. On both sides of the Atlantic, forecasters are busily cranking out ever higher demand-growth numbers, ranging into the next century.

The reason is simple: gas is the most environmentally benign of all the world's principal energy sources. For the same amount of energy, gas produces only half the carbon dioxide of coal, and two-thirds that of oil. Although gas often contains sulphur when produced, this serious pollutant is removed with relative ease before combustion. Particulate matter and nitrogen oxides emmissions are small.

Meanwhile, new technologies have increased the economic attractions of gas by sharply lifting efficiency. Combined-cycle gas turbine technology can achieve thermal efficiencies of close to 50 per cent for electricity generation. Technologies on the drawing board promise theoretical efficiencies of 60 per cent, which can be lifted still higher when waste heat is used for space-heating purposes.

When compared to the best that can be achieved for coal – 37 per cent, plus the cost of cleaning up emmission from coal-fired stations – the advantages of gas are obvious. It is no accident that the biggest growth area in everyone's forecasts is gas burned for power generation. In Washington, the American Gas Association (AGA) is now talking about the possibility that US consumption could rise by more than 50 per cent by the year 2010 to 30 quads (roughly equivalent to 30 trillion cubic feet, (tcf).

In Europe, some oil companies are looking at a possible increase of similar magnitude to 350bn cubic metres (bcm) annually in 20 years. These are enormous increases and they beg the question of whether the gas industries in either Europe or North America are prepared to respond, or indeed, whether these high case scenarios are in any way realistic.

The questions are obviously linked. The worldwide oil industry is still suffering financially from the last time it believed and acted on the basis of optimistic demand forecasts. It will undoubtedly want to see clear evidence of firm prices and secure markets before plunging in again.

Yet excessively high prices could kill demand. Optimism about future consumption trends is supported by a growing concensus that the world's reserves of natural gas may be more abundant than was previously thought. Gas was once a nuisance, encountered in the search for oil. Yet it has now become a prize if found close to markets or near to developed infrastructures.

The reserves situation in Europe looks most secure. The UK has proven reserves that will keep it self-sufficient in gas until well into the next century, with many in the industry believing that the UK could supply its needs for 30 years without fresh imports. European Community gas reserves are less abundant, with the notable exception of the Netherlands, which plans to halt gas exports in 2010.

However, Norway, the Soviet Union and Algeria each has vast proven reserves that could potentially satisfy Europe's gas needs for many decades even if demand rises sharply. If Nigerian and Middle Eastern gas is factored into the equation, there is no question of Europe's gas supply running out for the forseeable future.

In the US, the reserves picture is more complex. With few exceptions, US proved reserves of natural gas have declined every year since 1967, and at the end of 1988 had a production life of just over 11 years.

Yet over this period, despite the drop in reserves and exploration for gas, estimates for potential resources issued by the American Gas Association and the US Department of Energy (DOE) have been buoyant. The DOE, for example, estimates US technically-recoverable gas at 996 tcf, enough to supply 50 years of US consumption.

If these estimates are accepted, and combined with the large proven reserves in Canada, Mexico, and Venezuela, which could supply the US market, local and regional gas reserves are potentially abundant.

Yet estimating and finding reserves is one thing, delivering them to market is another. The US has still not settled down from a decade of regulatory turmoil that has prodded the big US gas transmission companies into operating as open-access carriers, transporting gas on a non-discriminatory basis for any third party.

The system allows large consumers at the end of a pipeline to choose among competing suppliers and makes gas-to-gas competition a reality.

Open access transportation took root during a period of abundant supplies, weak prices, and falling consumption, all of which left pipelines searching for ways to lift gas throughput.

Although officials in Washington, who pushed through changes in the regulatory system, dismiss suggestions from sceptics that it may not cope effectively during a period of rising demand and tightening supplies, this remains to be proven.

In Houston, the gas production capital, there is continued despondency over persistent low prices, the ultimate cause of depressed drilling levels, and fear that an eventual tightening of the market could cause prices to soar and provoke Congressional intervention. Mr Martin Allday, recently appointed chairman of the Federal Energy Regulatory Commission, has expressed concern about the death of long-term contracts which open access has brought about.

Britain has also embarked on its own open-access experiment in which British Gas is required to transport gas for supply to industrial customers. Because British Gas is an integrated monopoly, with no competitors yet in gas transmission or local distribution, the shape of gas competition in the UK will be very different.

It remains an open question whether the full theoretical benefits of competition will ever be realised in the UK when British Gas so dominates the market. The ending of British Gas's purchase monopoly and allowing others to build competing pipelines may turn out to be at least as important factor for competition as forcing British Gas to transport gas for others.

On the continent, the gas industry has launched a vigorous campaign to defeat EC moves to open up the European industry to mandatory common-carriage rules. A draft proposal that would require pipelines to carry gas for other pipelines is seen as the thin edge of a wedge that would open the industry completely.

The gas industry has argued that mandatory common carriage is incompatible with the billions of dollars in investment needed to develop new supplies for Europe. Opposing this, however, the European chemicals industry looks with envy on US companies' ability to negotiate directly with a gas supplier of choice. They argue that lower prices would stimulate demand and that the supply would be forthcoming on a scale the current system could not match.

The outcome of the debate in Europe, which will be decided by the European Parliament and the Council of Ministers, is impossible to call. Should common carriage be introduced, however, just as in the US and the UK, the changes would certainly lead to unpredictable consequences as system continues to be refined until it works. The simplest part of the gas industry equation appears to be demand. Yet while the direction is clear, the magnitude of potential growth remains in a deep fog.

Uncertainty is generated by the slow pace by which environmental legislation and regulations wend their way through the political process.

Adventurous schemes for gas, such as using compressed natural gas as a vehicle fuel, must await government direction. This already appears an attractive option for urban mass-transit vehicle fleets, where air pollution is a severe problem. The AGA calculates that natural gas is only about 64 per cent the price of petrol, enough to compensate for the cost of converting engines. There is even talk of installing fuel switching capability on vehicles so that consumers can choose the cheaper fuel. However, some environmentalists worry that running the family car on natural gas would increase the danger of methane escaping into the atmosphere.

In the US, the demand picture is beginning to clear with Senate approval for the Clean Air Act. Yet until the bill makes its way through the House – and more is known – industries looking at energy-intensive investments will not be able to calculate the cost-variables of different fuels.

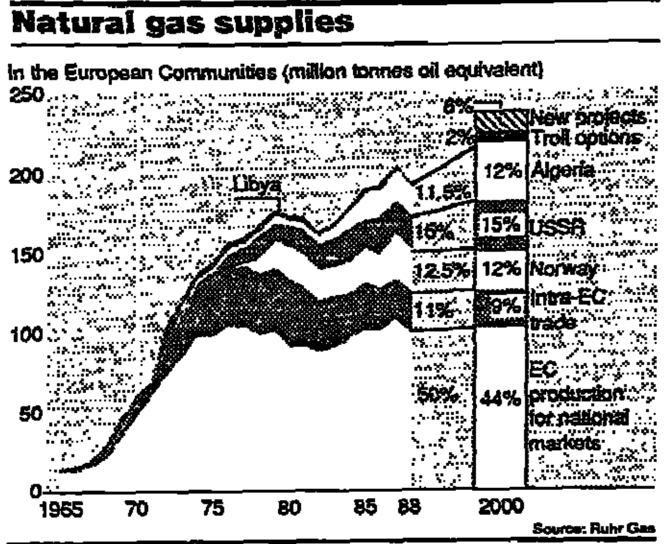
Similarly, in Europe, the full cost to the user of burning more highly polluting fuels is only gradually becoming clear. A sharp rise in oil prices, which many expect, would drive up the price of gas and make coal more attractive.

These uncertainties – running from production to delivery and final demand – will make the coming years full of risk for many participants in the industry. Yet they do not change the broad outlook that natural gas is on a path of growth.

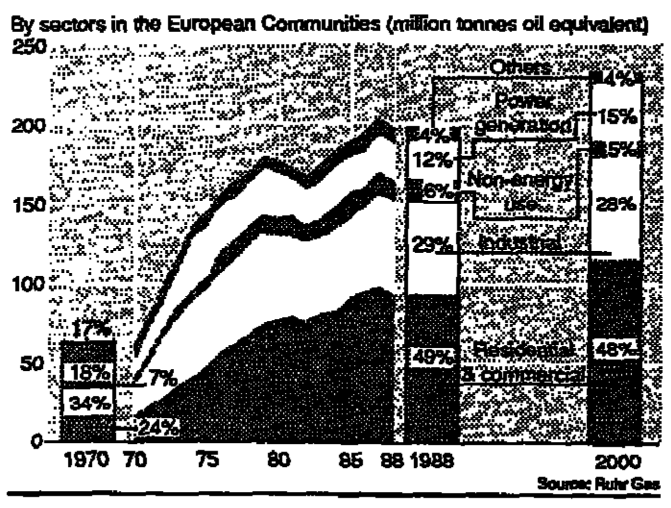
ON OTHER PAGES

Editorial production: Michael Wiltshire

Natural gas supplies



Natural gas consumption



Steven Butler on problems facing the European gas industry

Anxiety among suppliers

ALMOST to a man. Europe's gas industry – from producers to gas transmission companies – has shivered in horror at the thought that what has happened in the US could ever happen on the continent.

Yet under the banner of promoting competition and cross-border trade, the European Community may force open the pipelines to third party transporters paying a fee for service, much as in the US today.

Currently, pipelines act as merchants, purchasing gas passing through pipelines and selling it to customers within territorial monopolies.

EC bureaucrats ideologically disposed to free markets are leading the reform. They are supported by the European chemical industry whose motive is far simpler: it wants cheap gas.

The simple step of requiring pipelines to transport gas for others is far more revolutionary than it appears. The European gas industry has been built and financed on the basis of long-term contracts lasting up to 25 years.

The contracts have proved flexible instruments that have adjusted to changing market conditions: when oil prices sank, gas producers accepted lower prices and volumes stayed high.

The security of these contracts helped mobilise billions of dollars in finance to develop fields and build delivery systems from Siberia, Norway and Algeria. Transmission companies, such as Ruhrgas in Germany, Gaz de France, or SNAM in Italy, have confidently made long term commitments because they had control over a geographic market.

They now fear that if customers have rights to purchase gas direct from suppliers, they will lose market share and default on purchase commitments with producers. This is precisely what *did* happen in the US, leading to billions of dollars in liabilities. The pipelines argue further that future large-scale development of the transmission network will be impossible to finance without long term contracts. Other industries cannot make such commitments. These arguments are surely valid as far as they go. Yet industry critics also have a powerful case. The chemical industry says it does not need the same bundled services aimed at achieving the security of supply required by household and commercial customers. Why should it be forced to pay for it?

The move to reform the industry is led by EC bureaucrats ideologically disposed to free markets.

Mr Alan Wilson, of Dow Chemical, argued at a recent conference that the industry displays many of the undesirable features of monopoly. Prices, for example, are set at the maximum determined by the alternative fuel – rather than by competition among suppliers.

CEFIC, the federation of European chemical industries, says the gas industry has invested in massive redundant storage capacity to meet unlikely contingencies. These costs are passed on to customers, whether they need this insurance or not.

Mr Jonathan Stern, a gas specialist at the Royal Institute of International Affairs, argues in the similar vein. He says that open access and the choice of direct purchase would reduce security of supply for the consumer. Yet he believes that this is a choice the consumer ought to be able to make. The arguments for and against open access has been played out in increasingly polemical tones. The EC commissioned Coopers and Lybrand to look at the debate.

The study was *not* a robust defence of open access. Indeed to many readers it looked like a systematic critique. None the less the EC asked for a follow up to quantify potential benefits of open access, assuming the potential could be realised. These were found to be about two per cent of gas costs. Cometec-Gaz, the representing gas industry, retaliated with an Arthur D Little critique which tallied up the potential costs, which came to about four times the potential savings.

Mr Stern dismisses both attempts and argues that costs or benefits are impossible to know because too many assumptions must be made. He argues instead that open access is attractive because it is consistent with EC market principles and would give greater choice to consumers.

However, a powerful regulator would be required, able to seek information and enforce decisions, particularly because all the pipelines look set to resist yielding control over pipeline capacity. This problem never arose in the US, where pipelines sought to transport gas to keep the pipelines full when demand contracted.

Mandatory open access might rather resemble a British model, where open access was forced on a hapless British Gas. The industry however fears that regulation, once begun, may become an increasingly intrusive and expensive burden that could outweigh any theoretical benefits.

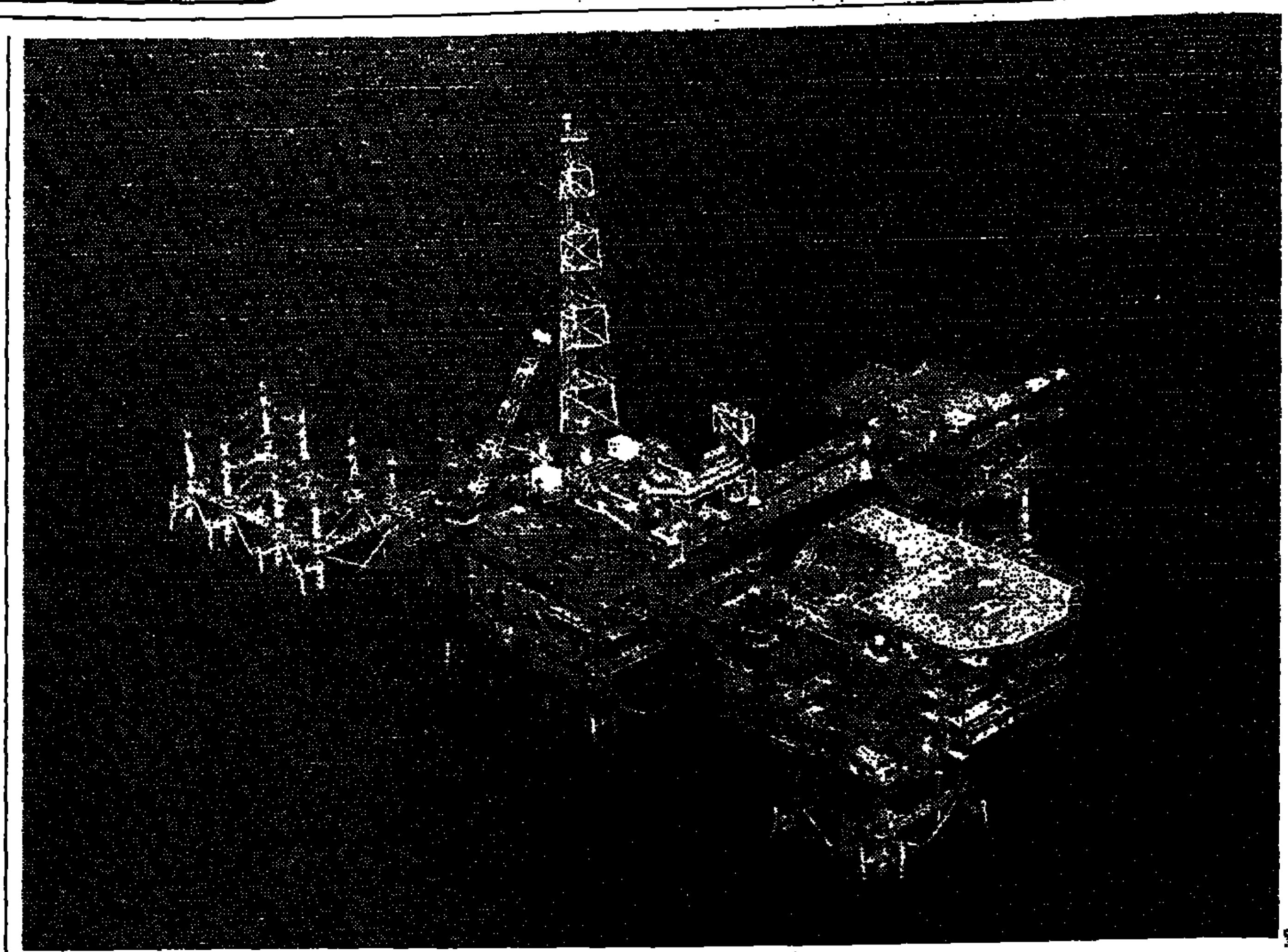
Mr James McKinnon, the UK gas regulator in charge of Ofgas, while broadly in favour of open access, is not sanguine about the prospects of achieving this on a European-wide basis. For one, the structure of the gas industry in different European countries differs sharply, from the integrated statutory monopoly in France to the fragmented, unregulated industry in Germany.

A single regulatory regime would have widely different impacts in the different countries and achieving consistency and the "level playing field" for competition would be exceedingly difficult.

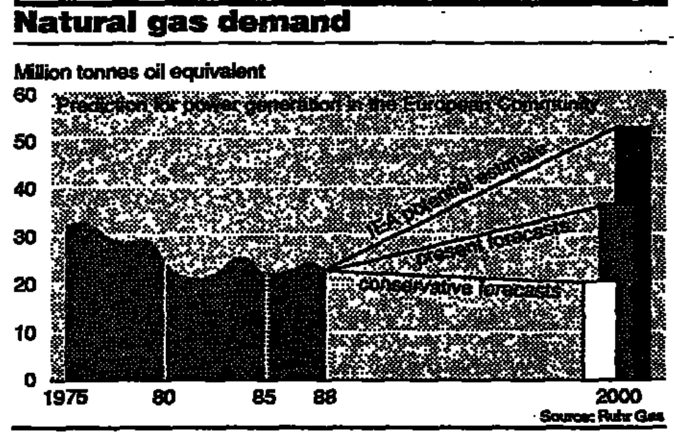
For another, the current structure of the industry has broad political support in many of the EC countries. Overcoming political opposition to change would be very difficult. Just as important, however, is the lack of integration among the national gas grids. These grids have been developed to serve national markets in an integrated fashion. Although cross-border transit and trade of gas is widespread, the system as currently configured may not have the technical flexibility found in the US to handle rapid shifts in the pattern of gas trade.

To achieve this would require new investment in pipelines and compressor stations, particularly in Germany which, because of geographical position, would be the main interchange of the European gas industry.

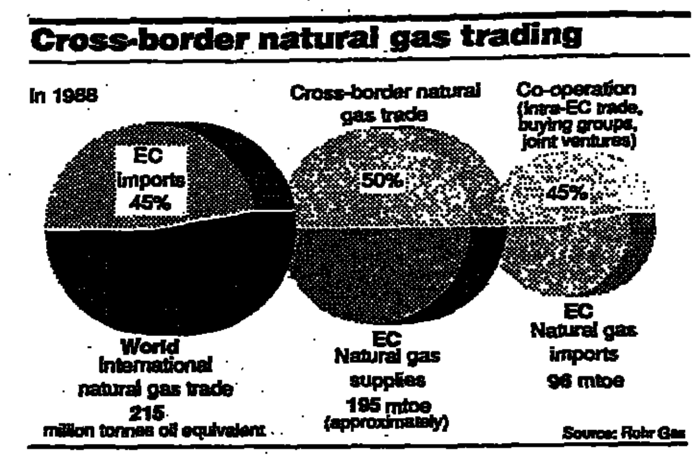
The different caloric values of Dutch and other gas would also be an obstacle to fuller integration.


European gas-gathering station: producers generally oppose US-style market 'reforms.'

Natural gas demand



Cross-border natural gas trading



WEST GERMAN MARKET

Preparing for battle

A BATTLE over the future of the West German gas market is shaping up in the backyard of Ruhrgas, the biggest of the German gas companies and one of the dominant players in Europe.

Wintershall, part of the BASF chemicals group, is proposing to build a 560km pipeline from Emden to Ludwigshafen that would put it in position potentially to compete directly for Rurhgas customers.

Oddly enough, Ruhrgas appears to like the idea, or at least some of the principles behind it. Rurhgas knows, of course, that the odds may be against the Wintershall pipeline ever being built. But to have a bit of prospective gas-to-gas competition on the horizon just when the EC is proposing to reform the industry helps its argument that in Germany, at least, the gas industry is competitive.

The German market is unique in Europe. Germany has no statutory monopolies on the purchase, sale, or transport of gas. There are 29 private companies owning high pressure pipelines operating in an almost completely unregulated environment, and over 500 local distribution companies.

Even supply to residential and commercial customers, where gas has a 24 per cent market share, is unregulated, with one exception: supply to new households cannot be discounted.

In order to capture new business in the household sector, gas must be priced competitively against heating oil, electricity and district heating schemes.

The German Government, unlike others, has always accepted that inter-fuel competition both in the household and industrial sector provides sufficient competition to stimulate an efficient industry and protect consumers. This, it figures, is far less of a burden than government regulation.

The pipelines do not compete against each other, as demarcation agreements (which expire in 1994) define what amount to territorial monopolies in practice.

Yet, as Ruhrgas tirelessly points out, any customer unhappy with the gas which Ruhrgas offers for sale is free to build a pipeline and do it better or more cheaply.

The West German market, with over 500 local distribution companies, is unique in Europe

In the absense of the Wintershall proposal, this sounds very much like an empty offer because market entry barriers are so high. It is one thing to build a gas supply system, as Ruhrgas did, where none existed – quite another to challenge Rurhgas's overwhelming position in a market that bears many characteristics of a natural monopoly, although in theory European competition law could be used against a gas company found to be abusing a dominant position.

Building a pipeline to serve only one company is also uneconomic because sufficient economies of scale cannot be achieved without much higher volumes. Even so, Ruhrgas's main point, at which it hammers away with tireless Germanic consistency, is that its shareholders have put private capital at risk. Others ought not to be able to benefit from Ruhrgas investments without paying a market price – a price determined by inter-fuel competition.

If others do not like it, they are free to risk their capital in the same way. Ruhrgas does not see why it should be forced to transport gas for a fee, particularly when Ruhrgas enjoys none of the protections against competition found in neighbouring countries.

Instead, Ruhrgas insists on defining itself as a gas merchant, whose principal business is to buy and sell gas and deliver it via its own pipelines. It takes a risk not only by building pipelines, but by "buying long" – as long as 25 years – and selling short.

The prominent role that Ruhrgas has played in opposing EC moves toward mandatory open access is undoubtedly a reflection of its relatively vulnerable market position.

Ruhrgas does not have a secure base of small customers who could never be expected to enter into direct deals to buy their own gas.

Rather, it is the dominant high-pressure pipeline company that delivers gas to other distributors and a few large industries, who conceivably would be large enough to contract for their own supplies directly with producers.

Although Gaz de France also opposes open access in Europe, it would be far less severely affected because as an integrated supplier it has control over local markets. Prying apart its monopoly would be at least as difficult as in the case of British Gas because of the obstacles potential competitors face wedging their way in.

Thus, mandatory common carriage in Europe would have an ironic effect: the most liberal gas market would be affected most severely, while the most centralised and tightly-controlled markets would be relatively untouched.

Ruhrgas has always argued competition is best promoted not by regulating the use of private property by enforcing common carriage, but lifting restrictions on building pipelines and on buying and selling gas. It can undoubtedly make these recommendation in some confidence. Wintershall is aiming to build an eight billion cubic metre (8bcm) a year capacity pipeline, of which 3bcm would be for its own use. Wintershall, however, is unlikely to raise sufficient finance for the project until it can demonstrate that it has both a secure customer base and a secure source of supply.

Wintershall appears already to have struck out on arranging a Norwegian supply of the 3bcm for its own use. Although Statoil, the Norwegian state oil company, has plenty of gas to sell, it will not undermine the market position of its biggest customer, Ruhrgas, merely on the prospect of a marginal sales increase.

Wintershall has talked to the Soviets about a gas-swap deal. While the Soviets say they will agree to any deal that makes commercial sense, Wintershall has yet to make a concrete proposal and a swap deal would appear to hinge on an alternate supply of gas. Filling the other 5bcm of pipeline capacity could be a big problem, although there is talk of Wintershall transporting the gas through German territory for other countries.

Should the Wintershall pipeline eventually go ahead it could pose a threat to Ruhrgas, although it is unlikely financial institutions would support a project that would lead to excess capacity and a price war. Yet if the Wintershall proposal falls flat, it raises a serious question: is the German market so open to competition, as Rurhgas claims?

Steven Butler

NORWAY

Ambitious plans under way

NORWAY, one of western Europe's major suppliers of gas, believes that it will nearly double annual exports by the turn of the century to about 50bn cubic metres (bcm) from about 27bcm.

This ambitious goal will be achieved by increasing existing market shares on the European continent to more than 25 per cent from 15 per cent and by winning access to new markets including the supply of LNG (liquified natural gas) to the US.

"The world is a brighter place to be at present than it was just two years ago, as seen from a gas-seller's point of view," observes one market analyst. There are just eight countries in the world which have access to more natural gas reserves than Norway, which has 2.75 trillion cubic metres (TCM).

Norway's main marketing thrust is to increase existing market shares on better commercial terms than what prevails for existing contracts and to focus on its "core" markets rather than seeking to enter new markets at any cost.

"New projects will require contracts which can secure an economic rate of return ... for the main challenge facing Norway, as a major gas producer, is to identify new projects which are sufficiently profitable," explained Mr Peter Mellbye, an executive with Statoil who is the state oil company's head gas negotiator and market strategist.

This is backed up by Mr Harald Norvik, Statoil's president, who made clear that Norway has "established the required flexibility to refrain from entering into any additional contracts if the available terms are not commercially acceptable".

Mr Mellbye says that in contrast to what has in the past been conventional wisdom about Norway's state of gas play there are now limitations on the supply side.

"There was developed the notion that Norway has a lot of gas which is seeking immediate market access. This is simply no longer the case," he says.

"We have few projects which are mostly committed to supply contracts and, insofar as new projects are concerned, there is a process involved in converting recoverable reserves into a sellable product; that takes time and there are limitations."

Norway's biggest competitor in the western European gas market is the Soviet Union. However, the advent of perestroika is likely to work in Norway's favour than against it to increase market share, it is now believed.

"Researchers earlier forecast that perestroika would clear the path for more Soviet gas to flow into western Europe.

"However, we believe that with the Soviet domestic transition which perestroika has facilitated, the country is not in a position to take on significant, new commercial gas supply commitments and this situation could prevail for a decade," Mr Mellbye explained recently.

"There is also more political risk attached to Soviet gas supply than ever before, which must be a serious consideration for the buyers."

The Norwegian view about the potential of east European countries as new buyers is a cautious one – "there are problems facing east Europe, though it may eventually become an interesting market place for natural gas if for no other reason than the necessity to clean up its polluted environment which could be aided by diversifying from coal to natural gas to generate power."

Most interesting of the east European market opportunities for Norway are the countries of East Germany, Poland and Czechoslovakia which are totally dependent on Soviet supply, but which will seek to diversify this source of supply.

These opportunities are not without problems, or at least major challenges, however.

The structure of the East European gas industry is not flexible at present to adjust to the challenges which developments will require.

According to Mr Mellbye: "In East Germany, which is the most interesting market of the three, there are many companies vying for a central role but there is uncertainty over how many of these companies will exist after German reunification.

"Many are likely to be absorbed by West German gas companies so our challenge is to identify which ones will be the future East German gas buyers.

"Until this is sorted out, it's going to be very difficult for us to undertake commitments to sell our gas."

Last month, Poland expressed interest in buying gas from Norway, but both Poland and Czechoslovakia "face payment problems which make it difficult to assess the potential of these markets and the timing."

Though Norway sees new opportunities to sell gas, its greatest potential lies in expanding existing markets within the Troll field basket of customers which is where its main quantities of gas will continue to be sold.

The Troll field is currently the world's largest offshore gas field under development. In 1986, Norway signed a supply contract worth $60bn with a consortium of European buyers including West Germany, France, the Netherlands and Belgium, which have been importers of Norwegian gas for nearly 15 years.

The 1986 deal calls for a 20-year supply from the Sleipner and Troll fields in which West Germany contracted 8.3bcm a year. France signed on for 6bcm a year, while the Netherlands and Belgium each contracted 2bcm each a year.

This was expanded by West Germany in January which opted to to boost annual supplies from 1993 of between 4bcm and 5bcm for 20 years.

In addition, West German buyers have a third contract purchase option which must be exercised by July, 1995.

Mr Mellbye is confident that total West German take could eventually increase by an additional 18bcm to 20bcm a year.

He is also confident that France, Belgium and the Netherlands may expand their imports from Norway by an additional 10bcm to 15bcm.

France, however, last December declined to exercise a purchase option for reasons which it hinted are linked to a "trade imbalance" between the two countries.

Norway's optimism is not unfounded for it is backed up by its gas buyers: Mr Pierre Gadonneix, president, Gaz de France, stated publicly last year that "there is still room for expansion of the gas market in France even if it is now mature."

Norwegian gas could also find an increased role to fulfil French demand, "should all necessary conditions be correctly met," he commented.

Mr Klaus Liesen, chairman of the executive board, Ruhrgas, earlier declared that "the share of gas from Norway will grow from the present 15 per cent to approximately 25 per cent."

He added: "The possibility of a significant increase in the use of natural gas for power generation in West Germany cannot be entirely ruled out during the 1990s and during the first decade of the 21st century."

Further impetus for optimism has been given by Mr AHP Grotens, general managing director, Nederlandse Gasunie, who says that the growth of (Dutch) import volumes from "distant regions" is unavoidable in the long term.

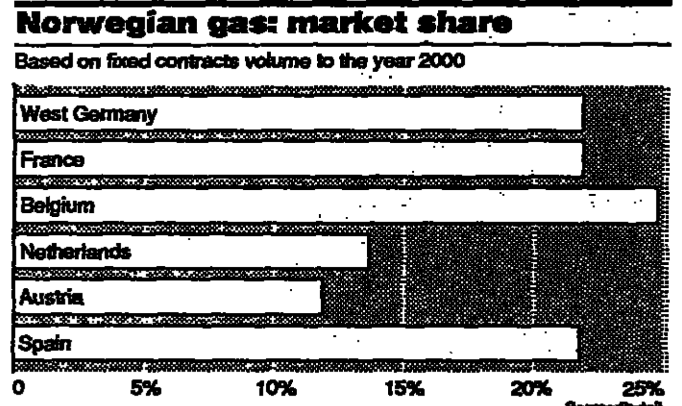
As for Norway breaking into new markets, there exists some uncertainty, though Spain was signed on two years ago in a deal that was subsequently improved in scope and in time.

In addition, Austria has contracted minor quantities. Norway has been negotiating with Sweden to supply between 2.5bcm and 3bcm gas annually for power generation to replace nuclear power but there is now considerable uncertainty over Sweden's intention to dismantle is nuclear industry.

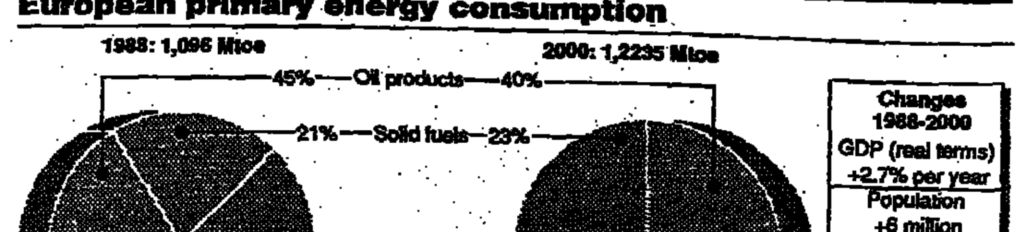
Furthermore, the economics of such a project "would require a reasonable price for the gas to make an investment by Norway profitable."

Karen Fossli

Norwegian gas: market share



European primary energy consumption



Natural progression

1965
BP discovers the UK's first commercial offshore gas field, West Sole, in the southern North Sea.

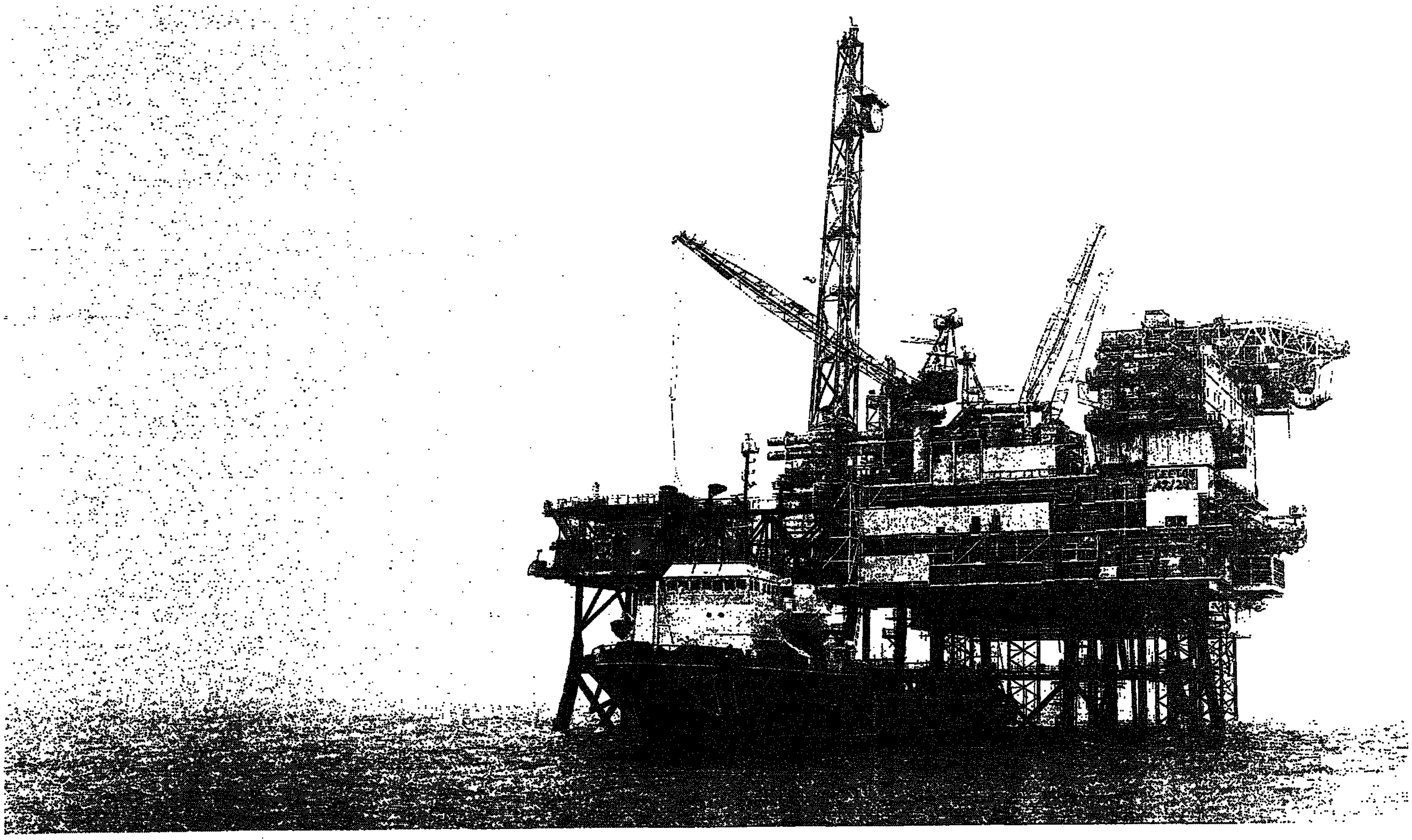
1967
Production commences from West Sole, supplying the first UK natural gas to the national grid.

1972
BP starts small-scale direct gas sales to local industries from the onshore Gainsborough field in Lincolnshire.

1986
BP reaches first common carriage agreement with British Gas to supply Hull chemical complex.

1988
BP announces agreement to sell gas from the Miller field to the North of Scotland Hydro-Electric Board at Peterhead. This will be Britain's first power station supplied by direct gas sales.

1989
BP forms direct gas sales unit.



1990.

North Sea gas – direct to Britain's industry from the nation's number one producer.

Naturally.

BP

For further information contact: BP Gas Marketing Ltd., 301 St Vincent Street, Glasgow G2 5DD. 041-225 8277. Britannic House, Moor Lane, London EC2Y 9BU. 01-920 2556.

Steven Butler examines changes in the US natural gas industry

Competitive forces intensify

MUCH OF the US natural gas industry is still reeling in shock from the regulatory upheaval of the past decade, which has turned the industry upside down as it brought the era of open-access competition on pipelines.

In Washington, there are broad smiles of accomplishment that competition has does its job. Consumers now have a choice of gas suppliers. Gas is moving freely about the country on a spot sales basis. The industry faired well (by some accounts) in the December cold snap, thus proving it could respond flexibility. Gas prices around the country have converged, the clearest indication that competitive forces are working.

"There isn't anybody who isn't happy with this on Capitol Hill," says a congressional staff aid. Yet in Houston, the centre of the industry, the doubts will not go away.

"Sometimes, it's almost like Alice and Wonderland," says Jack Earnest, a lawyer and former president of Transco, the pipeline company. "It is difficult to see the efficiency gains. There is less flexibility in pipeline systems. Short-haul transport [which pipelines cannot refuse] makes pipeline management harder."

Some small consumers and commercial have seen rates rocket when their local utility lost a big industrial customer who previously shouldered part of the infrastructural cost.

"What is the privilege of pipeline ownership if you have common carriage?" says John Wolff, planning manager at Panhandle Eastern. "This is not really resolved in the US."

"The problem has been the rapidity with which one fundamental change after another out of the regulatory agencies," says Mr Robert Thomas, president of Tenneco Gas.

Mr Martin Allday, chairman of the Federal Regulatory Energy Commission appointed at the end of last year, has recognised the industry needs a period of relative stability to absorb the changes already introduced. Yet many of these are still under challenge in the courts, and they have created other unresolved dilemmas that the FERC will undoubtedly be forced to address.

Mr Allday has also called for a basis to be found for longer term contracts, one of the principal casualties of a decade of turmoil.

Pressure to introduce changes in the industry reached bursting point in the 1970s when low controlled wellhead prices produced a gas shortage. Decontrol of new gas encouraged pipelines to contract for longterm supplies at sky high prices, figuring an average price of new and old gas could be passed on to customers.

Yet demand for gas contracted sharply in the early 1980s, leaving pipelines with empty space and inability to honour purchase agreements. They tried to fill up the pipelines by cherry-picking big industrial consumers, which would only buy gas at a much lower price, and allowing them to purchase gas directly from producers. Baseload customers were still stuck with higher prices from gas bought from the pipelines on longterm contract.

When these arrangements were challenged in the courts as discriminatory, the FERC made two landmark decisions: First, local distribution companies were freed from contracts requiring them to buy from the pipelines, but pipelines were freed neither of their obligation to supply nor of the contractual obligation to buy from producers.

Second, pipelines were required to provide transportation to third parties on a non discriminatory basis, or not at all. These rules produced billions of dollars in lawsuits as producers tried to force pipelines to honour their contracts. The pipelines were unable to since they had lost their captive market. The producers were generally figured to have shouldered most of the loss and many hundreds went bankrupt.

The pipelines gradually reached negotiated settlements with most producers, aided by FERC Order 500, which allowed the pipelines to pass some of the settlement cost on to their customers provided they declared themselves to be open access pipelines, that is, open to all gas transporters on a non-discriminatory basis.

Order 500 was successfully challenged in the court, which did not accept FERC justification on the grounds that the order amounted to retroactive rate making. It is under appeal. The final adjudication of these disputes remains unclear, but most companies involved in natural gas are gradually focusing on the future of what everyone reckons will be a growth industry in the 1990s.

The pipelines share of direct sales of gas, gas which they purchased from producers and sold on as a merchant, declined precipitously in the mid-1980s, when open access first arrived. It is now climbing back up again. But this has given rise to the most critical regulatory question for the coming years: how to referee fair competition between the pipelines' merchant operations and other merchants of gas so that the pipelines do not have an unfair advantage.

This question is becoming critical as many of the long-term sales contracts between pipelines and local distribution companies (LDC) are expiring. The LDCs have a choice between renewing the old contracts (the pipelines cannot cancel service without FERC approval) and converting firm sales agreements into firm transportation contracts in which other merchants would supply gas.

The structure of charges introduced by the pipelines is under dispute

The problem is that few merchants can claim to offer the reliability of the pipelines. They are generally limited to half a dozen supply points for gas into the pipeline, compared to hundreds for the pipelines. This could put supplies in jeopardy during a repeat of last December's cold snap.

The structure of charges introduced by the pipelines is also under dispute. Hadson Natural Gas, an independent supplier, has taken Panhandle Eastern, the interstate pipeline, to court over its charges, called gas inventory charges.

These are the fees that pipelines are proposing to charge customers to provide a firm supply service. (In theory it covers the cost of firm contracts with producers, although some producers believe the pipelines will just pocket the money and take their chances on the spot market.)

The Panhandle Eastern charges require a customer to pay, say, 60 per cent of annual entitlements whether or not used. Hadson complains this locks in customers who need absolute reliability. Other pipelines are charging a fixed fee for availability, whether or not used, which leaves the customer free to shop around for the best price of gas.

The structure of gas inventory charges is one important item on the regulatory plate. Redesigning pipeline rates to promote maximum efficiency and throughput, something all seem to agree is not yet taking place, is another. The incredibly cumbersome procedure for federal government certification of proposed pipeline interstate constructionhas drawn criticism all around.

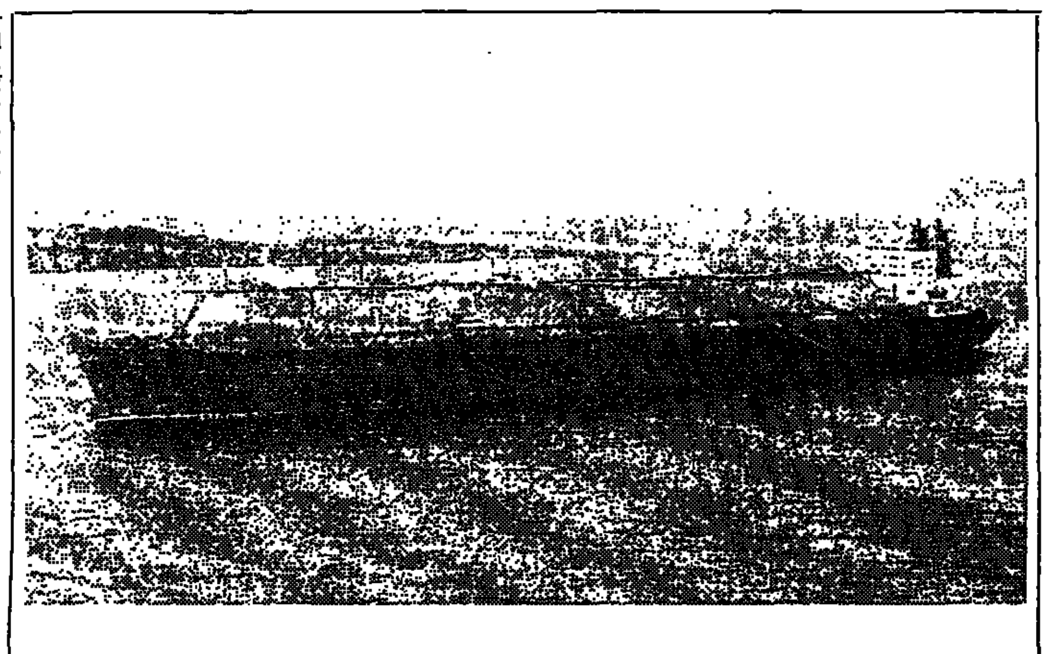
Approval of the Kern River pipeline project from Wyoming to California took more than five years. There is now discussion that Federal certification should perhaps simply be scrapped, on the grounds that the environmental risks of building gas pipelines are less than the damage caused by burning coal and oil.

There is even the faintest whisper in some quarters, which will probably never amount to much, that maybe all of this government intervention, and the army of lawyers and consultants it supports, in the end does not pay its way. (The cost is simply added on to customers bills when the pipelines make rate filings.)

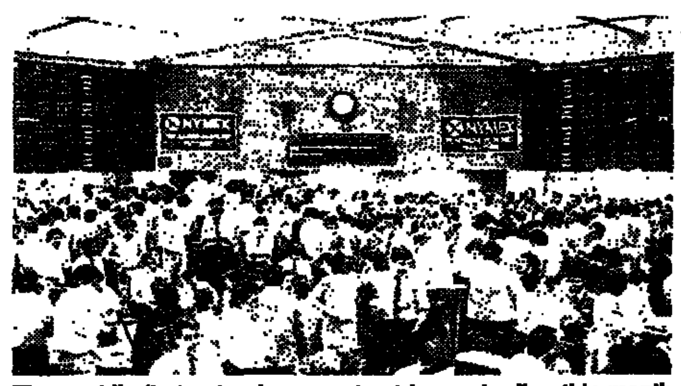
The head of large inter-state Texas pipeline says the light-handed Texas regulatory system could well be a model for the rest of the nation.

In Texas, pipelines charge what the market will bear, which means many have lost money recently.

With increasing competition between pipelines nationally, he believes, market forces themselves would usually be sufficient to provide discipline and promote efficiency, without having to have the FERC approve every change in business procedures.

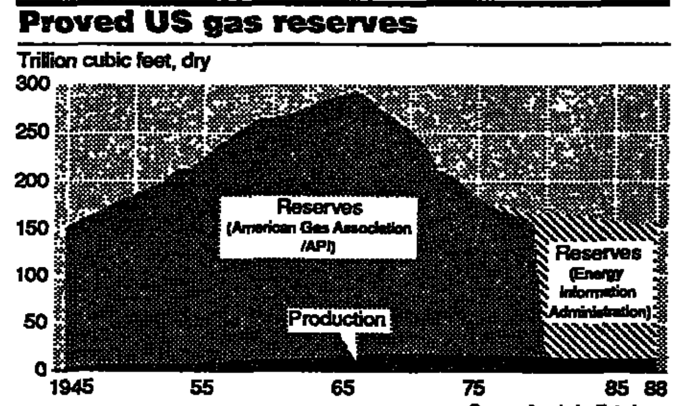


A liquified natural gas carrier with spherical tanks (capacity: 125,000 cubic metres)

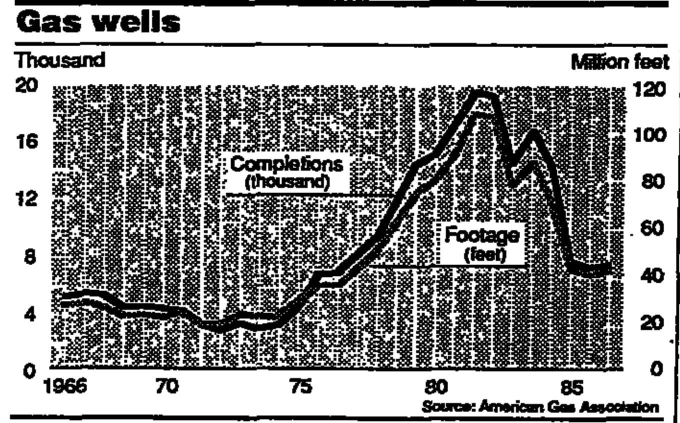


The world's first natural gas contract began trading this month at the New York Mercantile Exchange

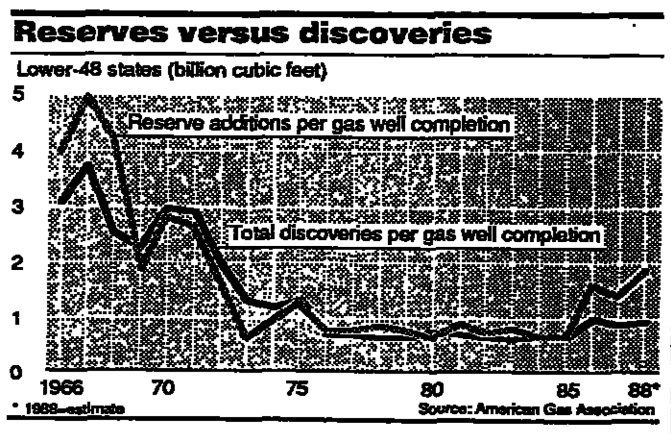
Proved US gas reserves



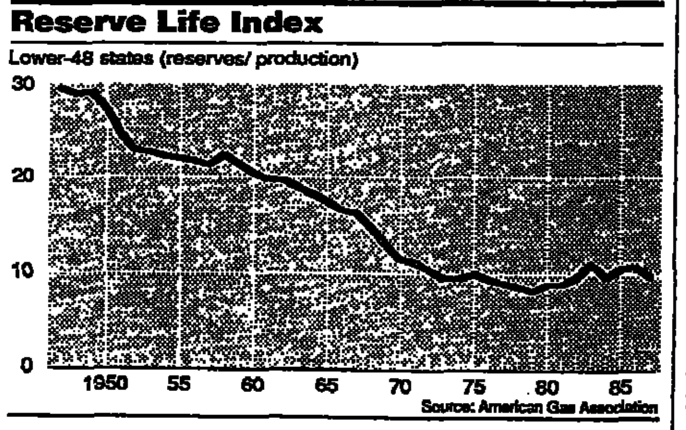
Gas wells



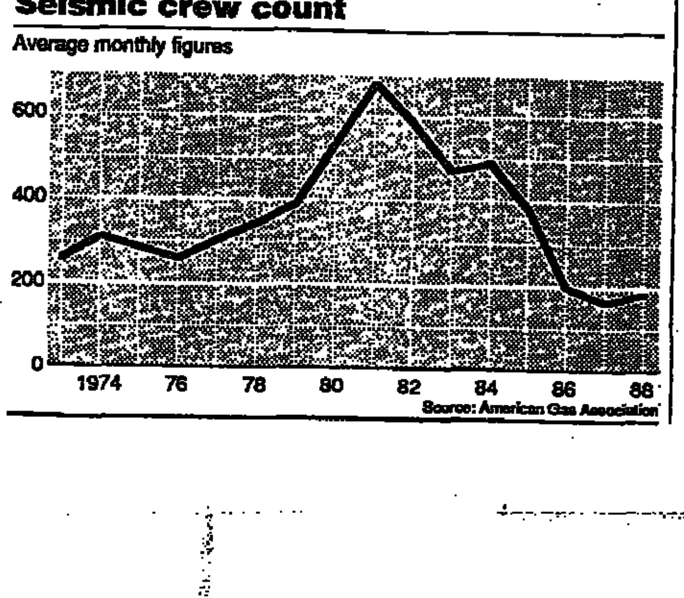
Reserves versus discoveries



Reserve Life Index



Seismic crew count



Warning from US suppliers

AFTER 50 years of regulatory turmoil in the US natural gas industry, the sector finds itself back where it has been often before – debating whether the regulatory regime, and the price of gas, will cause a shortage in the coming years.

The producers of natural gas in the US have cried wolf for many years and there is no surprise that few outside the industry are listening to them now. Producers are warning that the so-called "gas bubble" – an excess of deliverable supplies that has depressed gas prices in recent years – has deflated, and that, in the coming years, surplus will be replaced by a shortfall that could leave the industry unable to meet peak winter demand.

Despite decontrol of wellhead prices, enacted into law last year, current prices do not reflect anything like an impending shortage.

"Today's prices are so low that capital investment has not been forthcoming. We're on the ragged edge of a big shortage of gas," says Mr Robert Alison, chairman of Anadarko Petroleum, an independent producer.

The American Gas Association, which speakes mainly for gas consumers and pipelines, by contrast, is confident and reassuring that a balance between supply and demand will persist for the forseeable future.

It says that inside of 12 months, 0.7 to 1.2 trillion cubic feet of gas, compared to last year's consumption of nearly 19 tcf, could be brought on stream each year, and that with a three year lead, 1.3 tcf to 2.1 tcf could be made available.

Mr Robert Kalish, of the AGA, says this will come from four, readily identifiable sources: cheap, low-risk infill drilling on existing fields, stepped up Canadian imports, development of existing discoveries, and imports of liquified natural gas, (LNG).

This shorter-term rosy picture is bolstered by upward revisions to estimated potential gas reserves in the yet-to-be found category issued by the AGA Potential Gas Committee, which said that in early 1988 there were 983 tcf of gas yet to be be discovered in the US, compared to 18 to 19 tcf a year of consumption. This has led to broad confidence at the AGA that America has an assured future with abundant gas supplies.

Is the AGA right?

Many of the numbers normally used to predict economic activity do not support its case. In fact, while the "potential" appears more and more rosy in forecasts, the industry in position to realise that potential has been devastated by weak prices.

As a result, drilling levels fell off drastically in the 1980s and US reserves of natural gas have steadily eroded. In almost every year since the late 1960s, production has exceeded additions to reserves, even during the heyday of high prices in the early 1980s.

Moreover, the production industry is worried by the quality of reserve additions that have taken place. An increasing proportion of reserve additions come from reserve revisions, extensions to existing fields, and new finds adjacent to old fields. Less and less comes by way of new fields.

Of the 22 tcf added to US reserves in 1988, only 1.6 tcf came from new discoveries, and 1.9 tcf from new reservoirs in old fields. Many in the industry also question the size of the increment, 122 per cent of consumption, because it includes a 6 tcf of coalbed methane that some see as low quality.

Current prices do not reflect anything like an impending shortage

The lack of wildcat exploration may explain another statistic – why gas found per well drilled has been more or less stable since the early 1970s. Earlier theories of resource depletion suggested that this measure should have continued to fall from earlier highs.

"The explorers are picking off low risk reserves to drill. They are not really finding new gas," says Mr Phillip Whitman, a consultant with Aurthur D Little in Houston.

In a low-price environment, it appears, explorers who have not gone bust are shooting for the sure thing, low-risk drilling that results in incremental reserve additions.

While this props up the success rate, Mr Whitman does not believe the pattern of drilling can provide the future supplies that the AGA and others say will be necessary in the coming years.

"To assure long term higher supplies we need higher prices," he says, and at least a doubling of drilling levels.

Mr Alison says that exploration companies need to sell gas at two to 2½ times finding costs in order to break even. With industry average finding costs about $1.30 per thousand cubic feet (mcf), this would require a selling price of $2.75 to $3.00 per mcf. Well head prices, however, have been averaging about $1.70 per mcf.

While the AGA may accept much of this argument, it says that advances in technology have continued to bring down the cost of finding gas, and that actual higher prices along with expections of rising prices will be enough to bring sufficient gas to market in time.

In December, the US delivery system was put under severe strain during the coldest December weather on record, leading to near-record monthly deliveries of 2.3 tcf. To hear the AGA tell the story the industry performed beautifully under the circumstances, which were severe indeed. One third of the gas producing wells in the Gulf of Mexico were frozen shut for three days.

To some producers, however, the experience showed that the US industry is already having trouble meeting peak demand. Three interstate pipelines were forced to curtail sales to customers with firm supply contracts, although vital supplies to households were not turned off. The gas industry looked relatively good, next to the fuel oil industry, where shortages hit much harder.

Producers are warning that the so-called "gas bubble" – an excess of deliverable supplies that has depressed gas prices – has deflated

Gas prices charged ahead as gas in storage was depleted rapidly. Yet prices fell back quickly as customers deferred refilling storage until the summer months, when gas prices are low. The industry was apparently saved only by the unseasonably warm weather in January and February.

The "gas bubble," which depressed prices for so long, appears to have gone, yet average prices – as opposed to seasonal peaks – have not gone up significantly.

This has the gas producers worried, not only because they are not making the sort of money they would like, but also because of fears that a lack of financial incentive to drill will gradually erode the industry's ability to meet demand. This could lead to a sudden supply crunch that could cause prices to rise sharply and once again bring Congressional intervention and price controls.

This situation could take longer to develop than in past years because of the large capability of the US industry to switch to alternative fuels should the price rise to high, or deliverability not be there.

If a shortage in deliverability did lead to a serious shortage and soaring prices, it should not be too surprising. Former Federal Energy Regulatory Commission officials, ranging from former commissioner Ms Martha Hesse on down, have expressed confidence in the workings of the free market.

They believe that decontrol of wellhead prices combined with the competitive changes in the industry which allow producers to sell directly to consumers will put the market into balance.

Yet there is no reason to believe that the natural gas industry, deregulated, should behave any differently from other commodity industries, where long cycles of surplus and shortage are typical.

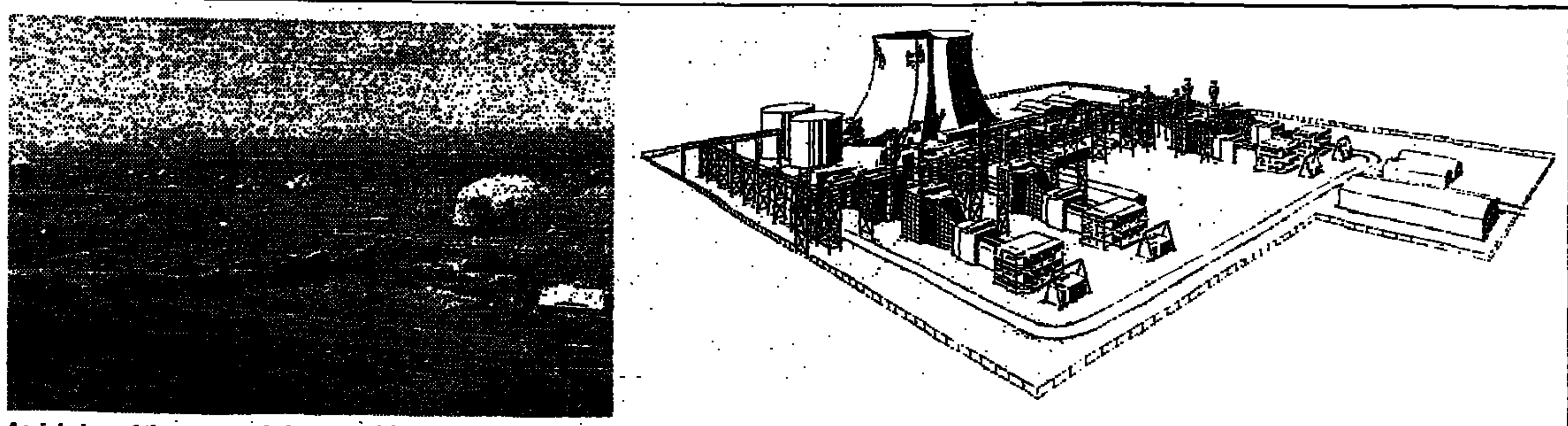
Indeed, Mr Whitman argues that the rate-of-return regulation on pipelines prolonges and exaggerates these cycles. This is because rate behaviour is precisely the opposite of what the law of supply and demand should indicate.

In the early 1980s, when gas demand fell off, pipelines put up their rates to earn a return despite a loss of throughput. This puts even more pressure on the producers, who are forced to take a market-determined price at the burner tip, minus higher delivery charges. As pipeline throughput rises and capacity becomes constrained, perversely, rates drop, the take by producers rise, and a boom in drilling is encouraged.

"In the 1980s, a thousand producers went bankrupt, but not one pipeline went bankrupt," complains Mr Alison. "Regulation has masked the market signals.

There is a widespread belief in Houston that the AGA view is not an objective forecast, but rather an attempt to reassure worried utilities and industrial users that investment in gas-burning equipment makes sense. Mr Whitman draws the most obvious conclusion from this clash of views; investment in equipment to allow fuel-switching is a good insurance policy.

Steven Butler



Aerial view of the proposed site for the Teesside Power Project at ICI Wilton Works, with, right, a perspective of the plant.

Gas is the favoured fuel in electricity generation, says Maurice Samuelson

A dramatic comeback

THE INTERNATIONAL energy shocks of the 1970s led to a reduction in the use of natural gas in power stations. But in the final decade of the century, gas is making a dramatic comeback as the favoured fuel for electricity generation.

Several factors have contributed to this new outlook:

■ The large quantities of gas now available.

■ Its environmental attractiveness.

■ New combustion technology and the lower cost of building gas-fired power stations.

■ Radical changes in the electricity industry, especially privatisation.

In the US, the Fuel Use Act of the mid-1970s which banned big new gas-fired power stations was repealed three years ago. In Europe, the 1975 European Commission Directive listing clear criteria for approving gas-fired power stations is virtually a dead letter. If the British Government has its way, it will be officially set aside later this year.

Environmentally, gas scores over coal because of its far lower sulphur and nitrogen content. This means that, unlike coal stations, gas burners do not have to be fitted with expensive scrubbers to reduce their contribution to acid rain damage to lakes and forests.

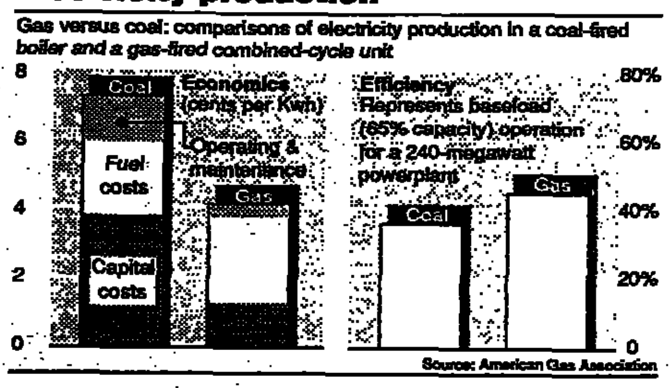
Gas still releases carbon into the atmosphere, thus contributing to the Greenhouse Effect, the latest source of global anxiety about the environment. But efficient methods of burning it mean that far less carbon is released into the atmosphere per unit of electricity produced.

The efficiency with which gas is converted into electricity has been boosted by the use of combined cycle gas turbines, in which the waste heat from the primary gas turbines is passed through a heat exchanger to raise steam for a secondary steam turbine.

The result is to achieve energy conversion rates of about 50 per cent compared with 37 per cent for the most modern conventional coal-fired power stations. It also enables gas producers to command a higher price for their product, and some are considering integrating vertically into the generating business.

Electricity production

Gas versus coal: comparisons of electricity production in a coal-fired boiler and a gas-fired combined-cycle unit



Source: American Gas Association

The only way in which coal producers can respond is via a similar route - by gasifying the coal for use in combined cycle turbines. (The "topping cycle" technology based at British Coal's Grimethorpe pilot plant is not yet ready for full commercial application but is one of a number of serious coal-based challengers. Once these systems are on the market, the greater stability of coal prices over that of gas may again tilt the balance in coal's favour.)

Natural gas, however, can also be burned in coal stations, thereby boosting their efficiency and diluting their noxious emissions. The American Gas Association claims that electricity from old coal plants "re-powered" with gas is half the price of that from a new conventional coal burner.

Gas is also increasingly used in co-generation, or combined heat and power (CHP) machines, in which the steam from the gas exhausts is used for industrial processes or space heating rather than being passed through a secondary turbine.

It is against this broad background that gas is taking a steadily increasing share of the power station market in most developed countries.

In the US, where 15 per cent of gas is used for electricity generation, it accounts for 10 per cent of the fuel used in power stations. According to a recent report by the US Energy Information Administration, this proportion could double by the end of the decade.

A similar growth in Europe is also predicted by the London-based forecasting consultancy Wharton Econometrics. In a recent study of 18 countries in Western Europe and Scandinavia, it concluded that by 2005 gas would account for 11.6 per cent of power station fuel compared with its 5.3 per cent share in 1988.

In Britain, where no gas was used in 1988, it would reach 12.2 per cent by 2005. In West Germany, where it stood at 6.3 per cent, it would reach 15.3 per cent; Belgium's use would rise from 4.9 per cent to 18.6 per cent and Spain's from 3 per cent to 10.2 per cent.

Only in the Netherlands, which has long fuelled its power stations from indigenous gas reserves, is gas set to lose market share, primarily to clean-burning coal plants. According to Wharton, gas in Dutch power stations will fall from 47.3 per cent to 34.4 per cent.

In Britain, it is electricity privatisation which has most dramatically transformed gas's prospects as a power station fuel. Until two years ago, both the Government and the monolithic Central Electricity Generating Board were contemplating building two or three large conventional large coal stations and three more PWR nuclear plants like that taking shape at Sizewell, Suffolk. The 900MW coal turbines would have been Britain's largest ever.

All these schemes, providing hope for Britain's order-starved power plant manufacturers, have now foundered as a result of the political decision to transfer the balance of investment decision making from the generators to the distribution companies which buy their output.

They have been replaced by a score of new projects, including about 10,000 MegaWatts of combined cycle plants, all but one of them to run on natural gas. The first gas contracts have already been concluded - British Gas, in its first such contract, will supply the fuel for 15 years to the 220MW plant at Roosecote, Cumbria, owned by Lakeland Power. It will supply 7 per cent of the electricity used by Norweb, the local distribution company.

PowerGen has signed up for gas for its 1,000MW plant at Killingholme from the Arco-Conoco Pickerill gas field in the southern basin; National Power's plant on the same site will be fuelled from Total Marine's Caister Field.

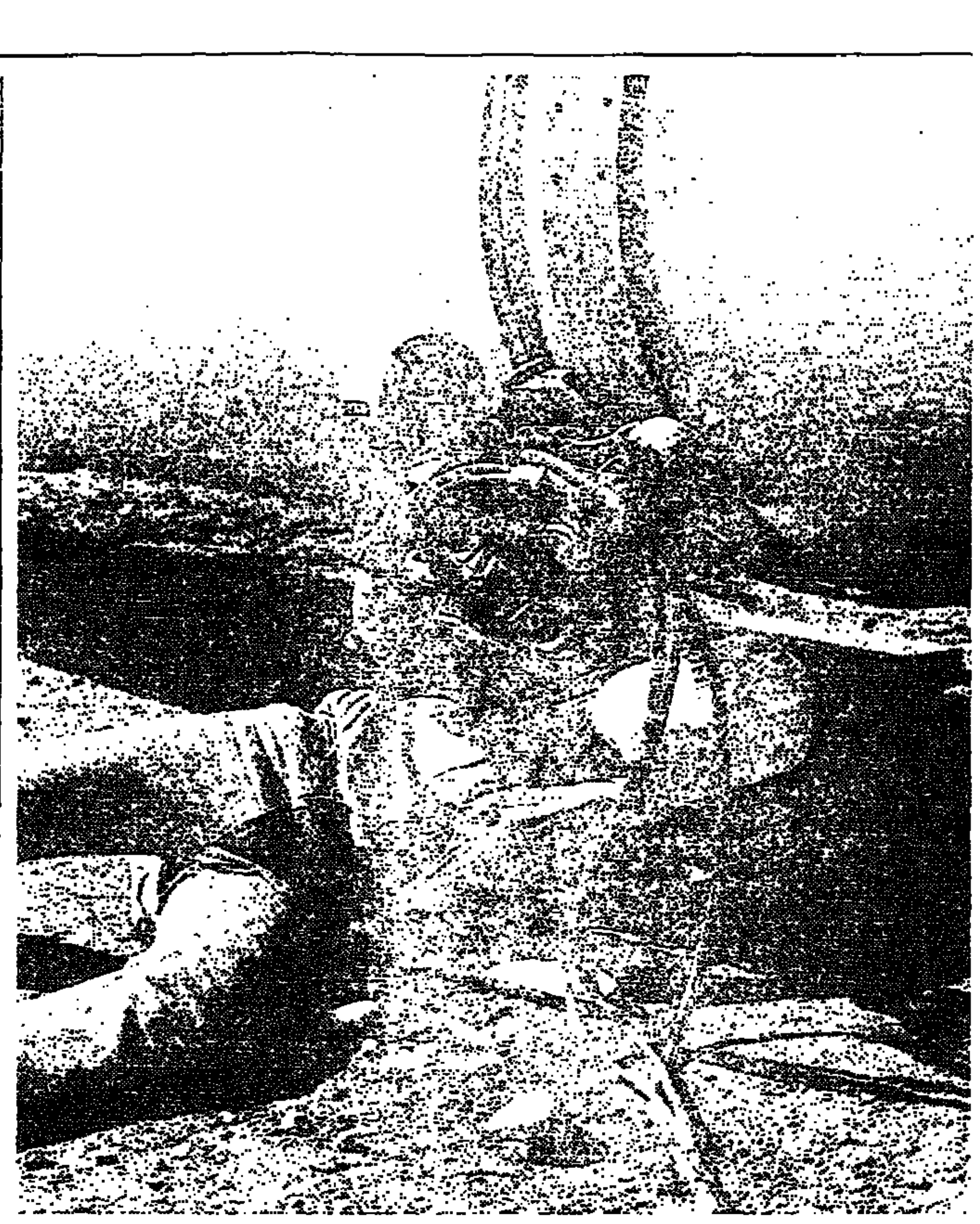
Ten per cent of the gas from British Petroleum's Bruce field has been secured for the 350MW power station at Corby, Northamptonshire, owned by East Midlands Electricity and Hawker Siddeley. This was the first such deal following last year's anti-monopoloy ruling that 10 per cent of all new gas fields in the UK Continental Shelf must be sold to a customer other than British Gas.

The biggest single power station gas contract, representing 6 per cent of the entire UK gas market, will provide 300m cubic feet a day for the 1,725MW plant at ICI's Wilton plant, Teesside, to be built and operated by the US Enron Corporation. The plant, comprising eight gas turbines, will take gas, through a specially built offshore pipeline, from the Everest and Lomond fields, owned by the Amoco/Gas Council group.

Analysts say British gas fields should contain enough reserves to the end of the century for the new electricity schemes currently under consideration. But electricity producers are also discussing longer term projects with other suppliers, principally the Norwegians, who are seeking new outlets to replace business from their declining Frigg and Odin fields.

That implies large-scale sales of Norwegian gas to British power stations. Four years ago, the British Government vetoed a contract by British Gas to secure the output of Norway's Sleipner field. It remains to be seen how the Government will react if a similar proposal is made by the electricity industry.

European Electric Power System in the 1990s; (WEFA Energy, Ebury Gate, 23 Lower Belgrave Street, London SW1W ONW); £5,500 for two copies.



Expanding network: a British Gas engineer welding new pipelines.

BRITISH GAS

A surge of new customers

PRIVATISED AND liberalised the British gas market may be, but one company – British Gas – still completely dominates the gas business in the UK.

British Gas, privatised in 1986, remains the monopoly supplier to households and the vast majority of small businesses – those consuming less than 25,000 therms a year. Moreover, although British Gas is facing competition in the industrial gas market for the first time, so far it has suffered little more than pinpricks from competitors in this segment of its business.

The giant British company, which claims to be the largest integrated gas supply business in the western world, has sailed relatively unscathed through what for it is bad news: a spate of mild winters. In the year to March 1989, revenue from gas sold to households increased by 3.4 per cent to £4.349bn – some two-thirds of British Gas's total revenue from gas sales - in spite of the preceding Christmas being one of the warmest on record.

More impressively still, the company managed to sign up 350,000 new customers last year – many more than was normal before privatisation. British Gas attributes this surge in new customers in part to new, more cost-effective techniques it has devised to bring the marginal customer onto its network. But British Gas's top managers are conscious that they cannot count on such progress in its domestic gas business indefinitely.

"We have already got high saturation and given five more years of progress like this, the market will be pretty mature," admits Mr Robert Evans, chairman of British Gas.

British Gas also faces a more political battle in its all-important domestic market. Mr James McKinnon, director general of the Office of Gas Supply, the industry's regulator, is preparing to negotiate new rules for setting prices affecting the company's 17m household and commercial customers.

In theory, Mr McKinnon has plenty of time to negotiate the new formula, which sets a squeeze, or X, factor by which British Gas must reduce its prices, after allowing for rises in inflation and gas purchase costs. British Gas's new price formula does not have to be in place until April 1992. In practice, however, the time needed to agree on a new formula will ensure that the issue become live this year.

At present, the squeeze factor is 2 per cent. Combined with the impact of weak oil prices on gas purchase costs, this has delivered a 10 per cent cut in real gas prices since 1986. Mr McKinnon is set on a fundamental review of the whole basis of the formula. To help him, he has completed a mammoth exercise to disaggregate the costs incurred in supplying household and commercial customers – those covered by the pricing formula – from those in the unregulated industrial or contract sector.

British Gas, which believes that rate-of-return controls have prompted US utilities into wasteful investments, will fight to retain the present structure of the formula. Unsurprisingly, it will also seek to dispel the widespread belief that its monopoly supply business is a low-risk activity, not meriting a return much above that on government bonds.

The gas company has not been noted for emerging successfully from its encounters with Mr McKinnon, a fact attributed by many industry observers to a misreading of the powers available to the regulator by Sir Denis Rooke, Mr Evans's abrasive predecessor.

Mr Evans paints himself as a very different character to Sir Denis, more of a conciliator. Yet the policies adopted by Mr Evans since he took over the helm of British Gas in July are firmly in line with those followed by the company since its privatisation. They flow from British Gas's conviction that it must reduce its dependence on the relatively mature UK market. This means building up the two other legs to the British Gas tripod:

● Global gas is the name British Gas gives to its desire to develop an overseas gas distribution and supply operation. Its proposal to acquire Consumers Gas, Canada's largest natural gas distributor, for C$1.1bn (£563m) is the clearest example to date of this strategy. Announced in March, the Consumers Gas acquisition still has to clear several tough regulatory hurdles in Canada.

● Exploration and production. British Gas's drive to develop an oil and gas production wing has roused much controversy.

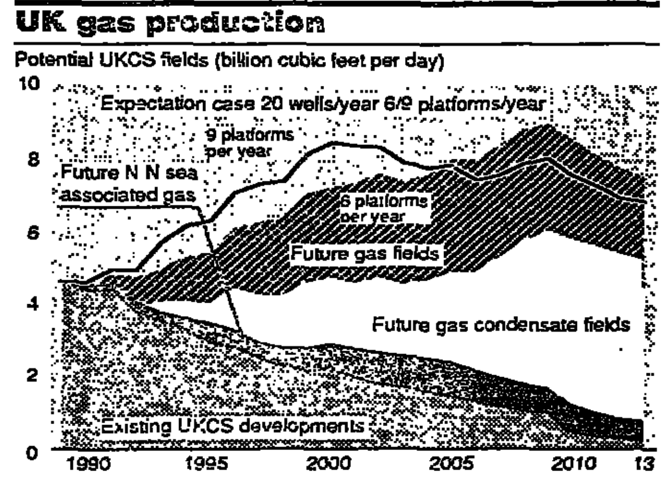
Its attempt to purchase Bow Valley Industries ran into strong regulatory objections which stopped British Gas from taking management control of the Canadian oil and gas exploration concern. Its failed bid to buy Petrocorp led to an embarrassing row with the New Zealand Government.

The fundamental question-mark raised by City analysts is whether British Gas should dilute its relatively shallow pool of top management talent by diversifying into risky areas of which it knows little. An alternative strategy would be to return more of the value of its monopoly earnings in the UK to its shareholders.

David Thomas,
Resources Editor

UK gas production

Potential UKCS fields (billion cubic feet per day)



Source: UK Offshore Operators Association

Environmental issues

Big claims for 'green' fuel

BRITISH GAS has been quick to seek to capitalise on worries about the effect of energy consumption on the environment. It has advertised the "greenness" of its main product – natural gas – in comparison with other hydrocarbons.

Natural gas is predominantly the hydrocarbon methane, and has a 20 per cent share of the world energy market, compared with 10 per cent in 1950.

Methane is certainly natural, occuring in vast geological reservoirs – mainly deep under the North Sea, in the case of British Gas's reserves.

The carbon atom in methane is linked to four hydrogen atoms. It is the simplest hydrocarbon.

British Gas makes big claims for natural gas as an efficient, environmentally friendly fuel. Simple hydrocarbons such as methane, if burnt completely in the correct ratio with oxygen and at temperatures which do not permit the combination of the main atmospheric gases, nitrogen and oxygen, produce carbon dioxide and water.

Burning natural gas emits only 60 per cent as much carbon dioxide per unit of heat produced as coal and 80 per cent as much as fuel oil.

Mr Alec Melvin, a research manager at British Gas, says that for the same energy output as obtained from other hydrocarbon fuels, natural gas burns to give at least 40 per cent less carbon dioxide, which is thought by scientists to be a major contributor to the greenhouse effect of global warming.

The greenhouse effect is caused by certain gases including methane as well as carbon dioxide, which trap the heat re-radiated from the earth after sunlight has warmed the ground.

Scientists believe that carbon dioxide contributes to about half the greenhouse effect of trapping outgoing heat from the earth. The amount of carbon dioxide is thought to be increasing at an annual rate of about half of one per cent.

Other gases are also capable of adding to the greenhouse effect, particularly chlorofluorocarbons (CFCs) and halons, which which have a strength as a contributor to the greenhouse effect that is 20,000 times greater per molecule than carbon dioxide. These gases come from refrigerators and aerosols, for example, and are thought to contribute about 14 per cent of the greenhouse effect.

Methane or natural gas is thought to be the second biggest contributor, after carbon dioxide, responsible for about 18 per cent of the greenhouse effect. The amount of methane leaked to the atmosphere is thought to increasing by about one per cent per annum, twice the rate of carbon dioxide. Each methane molecule is 30 times stronger in its greenhouse effect than carbon dioxide. So the importance of methane itself, regardless of its role as a source of carbon dioxide, is increasingly important.

Max Wallis, of the University of Wales, claims that British Gas is losing between 3 per cent and 10 per cent of its natural gas by leakage. British Gas puts the leakage rate at no more than one per cent.

Methane has two main sources: from naturally occurring gas reservoirs and as a natural by-product of rotting vegetation. One of the ways natural gas can help with environmental issues, according to British Gas, is with the use of techniques for the combined generation of heat and power (CHP). British Gas says that if running hours for a power generation system exceed 4,500 hours a year, then it is worth investigating the potential for a gas fired combined heat and power system. CHP offers an alternative to the separate use of boilers and other heating systems and to the purchase of electricity.

Mr Robert Evans, the chairman and chief executive of British Gas, in a speech to the Institute of Petroleum earlier this year, said that gas was part of a solution to environmental concerns and was not part of the problem.

Lynton McLain

Britain's industrial gas sector

Market revolution

A REVOLUTION in Britain's industrial gas market has taken place this year, although, so far, it is a very small revolution which has been noticed by few people and affected even fewer.

On the first day of March, Quadrant Gas became the first concern other than British Gas to sell gas directly to industrial customers, using British Gas's pipelines.

Quadrant, a joint venture between Esso and Shell, began the assault on the industrial gas market by unveiling two customers: Barr Thomson, a Fife engineering company, and the Ballantyne Cashmere Company of Peeblesshire.

Not to be outdone by its large oil company rivals, British Petroleum followed Quadrant with a similar announcement a month later.

BP Gas Marketing, a company established only in January, announced its first two industrial customers: the Corby factory in Northamptonshire of Euromax, a subsidiary of Amax, the large US metal producer, and the defence equipment plant in Doncaster, Yorkshire of MS International.

As yet, Quadrant and BP Gas Marketing represent the merest pinpricks on British Gas's industrial business.

Yet they are a culmination of a long struggle by the UK authorities to inject some competition into the "contract" gas market – that for customers using more than 25,000 therms a year, which yielded revenues of £1.523bn to British Gas in 1988-89.

Mounting dissatisfaction among customers with British Gas's monopoly of this market was echoed by Mr James McKinnon, director general of Ofgas, the industry's regulatory, who complained that British industry was having to pay more for its gas than its counterparts on the Continent.

British Gas had been legally obliged to transport gas for third parties wanting to serve the industrial market for a fee since 1982, but until this year this had never happened.

There was no gas available, since virtually all the gas coming out of the British sector of the North Sea was contracted to British Gas. Neither was there an obvious entry point for newcomers into a market which British Gas had sown up by negotiating individual contracts with its customers.

A bruising inquiry by the Monopolies and Mergers Commission into the industrial gas market changed all that. Published in 1988 and brought into effect last year, the commission's report made two key recommendations.

First, British Gas was told to publish a fixed schedule of prices for large industrial users and to stop discriminating against customers unable to switch to alternative fuels.

Second, it had to contract for no more than 90 per cent of gas from new gas fields – the so-called "90/10" rule which forced big North Sea producers to consider fresh markets for the 10 per cent of gas which they could not sell to British Gas.

Ofgas has guided the negotiation of the first few transmission deals under this new regime, stepping in when British Gas looked set to demand prices that would have made it impossible for a competitor to earn a profit.

The deals signed by Quadrant and BP now constitute a clear precedent, showing that British Gas and its new competitors in the industrial market can reach agreement on transmission without the intervention of the regulator.

Other would-be gas suppliers are waiting in the wings, including Associated Gas, headed by Lord Ezra, former chairman of the National Coal Board; Kinetica, a new company formed by Conoco and PowerGen; Gas Transmission, a pipeline company in which Enterprise Oil has a 25 per cent stake; and Mobil.

While there is plenty of interest in the industrial gas market, therefore, it is perhaps less clear where this new burst of competition is heading.

Many industrial customers are less than happy with the new regime.

While some companies experienced windfall gains when British Gas was forced to move to a fixed schedule of prices, others saw their gas charges rise substantially.

All of them lost the ability to negotiate prices. Unsurprisingly, British Gas echoes these complaints about the inflexibility of the new schedules, which allow its competitors ample opportunity to undercut it on price.

They are described as "a very unfair imposition on British Gas" by Mr Robert Evans, the company's chairman.

"I don't see the role of British Gas as fixing industrial energy prices in the UK," Mr Evans adds.

There is a distinct air of artificiality to the competition that has so far emerged. On the one hand, it is in British Gas's interests – as its senior managers privately acknowledge – to surrender some of its industrial gas market to the new entrants: otherwise, there will be renewed pressure on the authorities to tighten the constraints on British Gas still further.

BP's experience in entering the industrial gas market demonstrated just how keen British Gas is to encourage competition. BP Gas Marketing will be using gas initially from the Welland field landed at the Bacton terminal in Norfolk.

BP had originally agreed in principle to sell all its Welland gas to British Gas, but British Gas offered to forego 10 per cent of the Welland gas, so that BP could build up its own gas supply business.

On the other hand, British Gas's fledgling competitors face serious constraints – principally, for the next few years, a lack of gas not already contracted to British Gas.

Quadrant will be concentrating initially on customers in Scotland and the North with gas landed at the St Fergus terminal in Aberdeenshire. BP will be concentrating on customers in the Midlands.

Mr Dick Olver, (BP's general manager of European gas, says that BP will not have access to large volumes of uncontracted gas until about 1993.

In the meantime, however, BP Gas Marketing might try to build up its gas supplies by buying gas from other producers which may not want to enter the industrial gas market.

David Thomas

SECTION III

FINANCIAL TIMES SURVEY

The world computer industry faces a battle more intense than any it has experienced before, as strategic alliances, rather than technology, will determine the main winners and losers, as says **Alan Cane** explains here.

Lining up for battle

BATTLE LINES for the information technology wars of the 1990s are now clearly drawn. To the west, there is International Business Machines (IBM), grizzled veteran of the computing business, anxious to confirm that it is still leader of the data processing pack.

To the east, the Japanese computer manufacturers (JCMs) are resolute and confident after a 40-year struggle which has seen them move from nowhere to a position where they collectively represent the only serious challenge to IBM's dominance. And in the middle, Siemens of West Germany.

Very much an unknown quantity, Siemens has emerged as a computer manufacturer of international class only in the past few years. Now through its joint ownership of Comparex (with BASF) and Nixdorf Siemens Data Systems, it has become Europe's computer champion. What will give the battle added zest is the fact that all the combatants will be fighting on unfamiliar terrain and using, for the most part, new and untried weapons.

The old world of data processing, driven by technology and dominated by manufacturers' proprietary systems, is on the way out. While proprietary systems will continue to play an important part in the industry because of the billions of dollars customers have invested in them, the shift towards "open systems", where machines from different manufacturers can easily be connected together and run any make of software, now seems unstoppable.

The speed of change is camouflaged to some extent by the fact that the move to open systems is being driven chiefly by government agencies and by the armed services, anxious to get better value from the billions of dollars they pour into information technology every year.

Commercial groups, especially in the US, have been far slower to adopt the ideas of Open Systems Interconnection – rules which define how computers can be connected for easy communication; and a common applications interface – which means to all intents and purposes, the Unix operating system (or a variation of it) which allows software to be moved from machine to machine. The advantages of open systems are so appealing, however, that a steady stream of commercial groups are beginning to demand OSI and Unix for their new applications. Skirmishing around industry standards is nevertheless still commonplace. There seems to be no prospect yet of a single common version of Unix, for example. The Open Software Foundation (OSF) which includes IBM and DEC supports one version, while Unix International (UI), whose membership includes AT&T and Sun Microsystems, supports another.

Hostilities have been under way for two years. Peace talks which might have led to a common standard broke down earlier this month. A communique from the front line said: "UI and OSF determined that a full organisational merger could not practically be achieved at this time."

There has also been a furore in Europe over a draft EC directive that would outlaw software piracy. Critics say it would also outlaw legitimate measures manufacturers need to take to understand how their competitors' systems work in order to design compatible components. There are fears that it would give companies like IBM and DEC a stranglehold on who designs what to work with their systems.

Worldwide, the computer industry is still growing, but unevenly. In the US, spending on data processing is virtually at a standstill, while it remains vigorous – that is, with growth of more than 10 per cent a year – in Europe and the Pacific Rim. A major reason for the slowdown in spending in the US seems to be a deep disillusionment on the part of customers with the industry's offerings.

They complain that computer systems are awkward to use, that they are too complicated to connect together and that developing software to solve their business problems is too difficult. IBM, facing a serious and long-term decline in its rate of growth and profitability, has been turning itself inside out in an attempt to move away from its old, autocratic, technology-driven image to a softer, customer-driven approach. To be fair, it is a strategy that has been espoused by most computer manufacturers with varying degrees of success. IBM was by no means in the vanguard of the movement – but when IBM takes a trend seriously, the rest of the industry has to take notice.

What will give the battle added zest is the fact that all the combatants will be fighting on unfamiliar terrain and using, for the most part, new and untried weapons

The principal move is a change of emphasis from hardware to software. Mr Jack Kuehler, IBM President said: "One of the things we decided is that we must learn how to offer more software. We have to optimise our development budget, our people and our skills more towards the development and selling of software and hardware. It is one thing to say: 'Sell solutions!' and quite another quantify them."

IBM took its model for working with its customers from Japan, where it has had to fight against a cluster of indigenous companies with one hand tied behind its back for much of the time. It has been comparatively successful, but so have the major Japanese manufacturers – Fujitsu, Hitachi, NEC, Mitsubishi, Oki and Toshiba. In the late 1950s and 1960s, Japanese companies faced considerable disadvantages in entering the computer business. As Marie Anchordoguy points out in her study, Computers Inc.: "IBM had a 70 per cent share of the world computer mainframe market and the rest was dominated by large US companies such as Sperry Rand, RCA and GE. Fujitsu (now Japan's largest computer manufacturer) was just a tiny telecommunications maker with annual sales of $6.4m."*

Today, the picture is entirely different. The Japanese makers are dominant in Japan and are becoming steadily more influential in the west through a series of imaginative marketing and technology exchange agreements. While still individually small compared with IBM they are the only real threat to the US company's international dominance.

Where does all this leave Europe's computer manufacturers? It is received wisdom to say they are in need of a measure of rationalisation to provide critical mass and economies of scale. If they are to survive and grow, they have to extend their influence beyond home markets and find ways of financing increasingly heavy research and development costs.

Partnerships are one answer. Siemens took over its compatriot Nixdorf at the beginning of the year when unsustainable losses, caused by over-expansion into a declining market, started to overwhelm the minicomputer manufacturer. The deal has now been cleared by the West German cartel office, and the two companies are combining in a new venture Siemens Nixdorf Information Systems. Details of how the new company will operate are now being worked out.

Philips of Holland, which has a dismal record in information technology, and Olivetti of Italy, Europe's most successful small computer manufacturer, have been linked as likely partners. International Computers of the UK, part of STC Group, has made no secret that it is seeking a partner to help shoulder its research and development expenses.

One pressure for change is the advent of the single unified market after 1992. But as a recent British Computer Society study noted: "In reality, companies in the IT marketplace will not be operating in one large, free, homogeneous market using the same currency under the same law ... in sum, the benefits of scale will be more difficult to achieve than the American model suggests."

Hostilities may have commenced in earnest, but it will be some time before the dust of battle clears sufficiently to establish the winners and the losers.

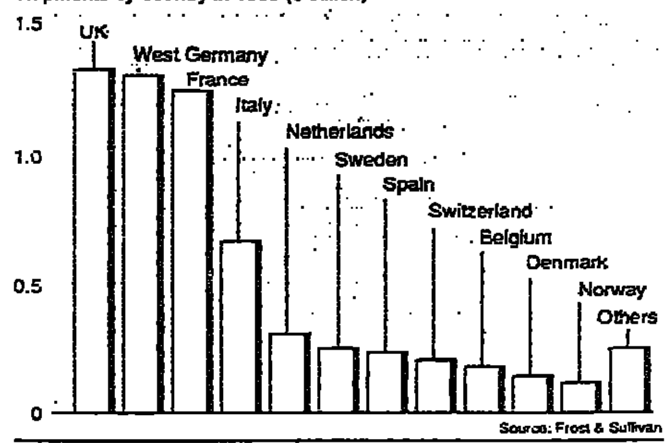
**Computers Inc.: Marie Anchordoguy, Harvard University Press, 1989.*

COMPUTER INDUSTRY

IN THIS SURVEY

European computer terminal market

Shipments by country in 1989 ($ billion)



Source: Frost & Sullivan

Editorial production by Michael Wiltshire

☐ PICTURED, left: Scitex's "Visionary" system enables users of Apple Macintosh personal computers to design complete pages – including colour photographs and illustrations – and then pass the digital data into a high-performance Scitex electronic page composition (EPC) system. The EPC then produces high-resolution films for four-colour printing. In this way, publishers and designers can gain the benefits of high-end electronic colour image processing without a substantial outlay.

Alan Cane examines changes in Britain's computer industry

US companies do better in UK

THE UK computer industry is less a single entity than a collection of smaller industries growing at different rates and with different challenges and opportunities.

The picture is further complicated by a clear distinction between indigenous companies and those owned by foreign, principally US, parents. Europe in general and the UK in particular is proving the salvation for many US companies, left with stagnant revenues in their home country where industry growth has been sluggish for the past three years.

The troubled minicomputer companies – Wang and Data General, for example – have performed well in the UK while losing money in the US. Mr Ronald Skates, president and chief executive officer of Data General says: "The UK is probably our shining example of a well-run organisation which direct appeal to the market place. The UK management has always been ahead of many other parts of our organisation in recognising what is going on in the marketplace."

International Business Machines, the world's largest computer company, together with Digital Equipment and Unisys, the world number two and three respectively, also fared better in the UK than in the US. A partial explanation is that the market for data processing equipment, especially the smaller machines, is still very active in the UK and Europe in general, while it is close to saturation in the US.

Indigenous UK computer companies can be dividend into three broad categories (this does not include software and systems houses or dealerships which examined later in this survey).

First, companies supplying a full range of computers from mainframes to microcomputers. The UK's only representative in this category, International Computers(ICL), part of the STC group, has been performing well in recent years and, along with Olivetti of Italy, is one of the few European hardware manufacturers to turn in a profit in 1989. Its revenues in 1989 grew to £1.6bn with profits of £146m making it one of the world's more profitable computer companies.

Europe, and the UK in particular, is proving to be the salvation for many US computer companies

ICL manufacturers mainframe computers using high performance chips designed by its own engineers but manufactured by Fujitsu of Japan with which it has long standing technology agreements. Earlier this year it made a bid for a leading position in the fast developing market for medium sized business computers running the "Unix" operating system. Unix now seems set to become the industry standard for operating software in the small to medium sized computer range.

The new ICL machines, the DRS 6000 series, follow the industry trend to reduced instruction set computing (risc) designs, where simplicity in chip design is set off against highly specialised software to give dramatically improved performance. ICL has been the target of extensive speculation over the past few years as its name has been linked with a range of possible partners both European and Japanese.

The computer industry world-wide is going through a period of consolidation and ICL has never made any secret of the fact that it is seeking a partner to help defray the heavy research and development costs which are essential for companies wishing to remain at the leading edge of information technology today.

Olivetti has been touted as a possible partner, as has Fujitsu. Mr Arthur Walsh, STC chairman, says the ideal partner for ICL would have technological expertise in areas where ICL is weak.

ICL is becoming, in any case, more of a systems house, able to integrate hardware and software to provide computing solutions for its customers, than a hardware manufacturer, with particular strengths in local government – where it has a leading position in community charge systems – and in retail systems.

The second broad category of UK computer companies includes the manufacturers of small computer systems. Amstrad, for example, is one of Europe's largest suppliers of personal computers, although its *forte* seems to be the small business and home computer market rather than the corporate market where sales of its more sophisticated products for "power users" have been disappointing.

Psion, which concentrates on portable computers, grew sales by 63 per cent to £31.4m this year but its pretax profits at £3.4m were disappointing. It introduced, however, a remarkable range of "notebook" computers with extended battery life and powerful graphically-orientated software.

Personal computer manufacturing, is an intensely competitive business, sensitive to economies of scale and offering low margins. Apricot, for some years, the UK's leading manufacturer of high performance personal computers or workstations has finally bitten the bullet and got out of altogther, selling its hardware division including a manufacturing plant, research and development facility, sales and marketing organisation and an Australian subsidiary to Mitsubishi Electric of Japan for £39m.

Specialist software groups are expected to form the UK computer industry of the future

Industry analysts thought the company got a good price. While the manufacturing division had external sales of about £70m (out of Apricot's 1989 revenues of £106m), its profits before group charges were £2.5m. Essentially, Apricot was making no money from its hardware operations.

There are a number of specialist manufacturers in the UK who continue to exploit niche markets. Research Machines, for example, with a powerful base in college and university computing, announced one of the first computers to use Intel's top of the line 80/486 microprocessor chip last year aiming it at the computer aided design market.

Opus Technology has been concentrating on data security and launched a product called Data Safe which uses physical barriers and two memory systems running in tandem to provide new levels of security and data integrity.

Acorn Computers, with Olivetti as its major shareholder, says it is achieving good acceptance of its "Archimedes" computer which uses 'risc' technology. Some 85 per cent of UK schools use Acorn machines.

There is also a tiny group of manufacturers building exotic machinery. Meiko, which builds arrays of transputers into supercomputers is one example. AMT, which has developed the ICL distributed array processor, another.

The third category of UK computer companies involves a heterogeneous group of small companies, growing rapidly through organic growth and acquisition and specialising in particular areas of the computing services business. It includes Headland Group with particular interests in accounting software, Misys with diverse interests, Ferrari in maintenance and Kewill Systems specialising in manufacturing software.

It is companies like these which are expected to form the UK computer industry of the future.

Lively market in Japan

THE JAPANESE computer market is growing steadily in all sectors, with the exception of desktop publishing. One of the fastest expanding areas is engineering workstations. More powerful than personal computers and one stage below mini-supercomputers, they are widely used in banks, securities houses, universities and offices.

Competition also remains strong in the personal computer sector. In the year to March 31, 1989 sales topped Y760 bn – a leap of almost 20 per cent from the year before – with 1,670,000 units shipped. NEC Corp. is the clear leader in this sector, although it faces constant challenges from rivals, including Sharp, Toshiba, Mitsubishi Electric and, increasingly, IBM.

Another sector to watch is the mainframe market, particularly supercomputers, following an agreement reached during Japan/US talks in March to open public sector procurement to foreign-built machines.

Workstations are becoming increasingly popular due to their low prices, high performance ability and Japanese language software applications.

The market is estimated to be worth nearly Y200 bn, with the 60,000 units shipped in 1989, nearly doubling the figures of the year before.

Sony Corp.'s suprise entrance on to the undeveloped scene three years ago with its NEWS workstations, shook competitors Digital Equipment Corp. Japan and Nihon Sun Microsystems. The 68000 series NEWS workstation carried a low price tag of Y2m, compared to the Y20m rate for US-made total systems.

Following the promising debut, Sony Computer System Co. surged ahead with the NEWS series. It recently enlisted the skills of competitor Nihon Apollo Computer Inc.'s former president Shigeko Inaoka to lead the Y300m workstation subsidiary. Shipments of NEWS workstations continue to rise, posting 12,000 units in 1989.

But industry watchers say the firm could have difficulty holding on to its high ranking. One of its two mainline products, PopNEWS, a widely-used basic model, costing less than Y1m, was recently found to be plagued by bugs – and sales plummeted.

Workstation market leader Nihon Sun Microsystems shipped 14,500 units in 1989. Yokogawa Hewlett Packard, which bought Nihon Apollo Computer Inc. in 1989, will introduce a low-priced, speedy entry level machine in its HP-9000 series of workstations this year.

In the PC market, the average consumer in Japan is spoiled for choice. Browsing through the wholesale electronics centre in Tokyo's Akihabara district, he or she is faced with a wide variety of operating systems - standard MS-DOS, OS/2 for 32-bit computers, the kanji-based JS-Windows, MS-Windows from Microsoft, and UNIX from AT&T that comes in both English and Japanese versions.

The average PC-buyer in Japan is spoiled for choice

Most Japanese manufacturers are trying to hedge their bets to cover the diverse market, anxious not to commit themselves to any one system. Canon, for example, produces a PC in the AT/AX category, at the same time acting as an agent for Apple Computer and maintaining an OEM deal with Hewlett Packard.

But NEC, with Japan's largest software collection, is big enough to go it alone. Its mainline product is the PC-9800 series of 16-bit computers that uses the company's proprietary operating system. Compared to the previous year, sales of the PC-9800 rose by 30 percent to about 800,000 units in the year to March 1990.

The firm's 32-bit machine sales shot up by about 100 percent to almost 250,000 units, and laptop sales rose by a massive 150 percent to about 180,000 machines.

The notebook-size PC-9801, first shipped in December last year, reached 100,000 sales in just four months. NEC forecasts further rises in domestic PC sales in 1990: the target is Y460bn, up 15 per cent on this year, with sales of 1,200,000 units, up 20 per cent, a spokesman said.

NEC's rivals have wisely joined forces to fight the PC giant. In 1989, 10 companies agreed on a common, Japanese-language operating system for 32-bit PCs. This will enable consumers to use programs in any of the group member's companies - a major breakthrough on the previously unco-ordinated Japanese PC market.

NEC is unlikely to be unduly worries as its sales are so strong. But it surely recognises the need for a common system. In the mid-1980s, NEC agreed to allow Seiko-Epson to produce an operating system fully compatible with its market-leading PC-9800 series. Within months, the Epson PC-286V was challenging NEC's popular PC9801-VX21 with its faster speed and lower price.

One of the latest entries on the market is Apple Computer Japan's new three-model series of its Macintosh PC. Twice as fast as earlier versions, the Macintosh 11fx range costs from Y1.5m to Y1.8m.

Toshiba – the pioneer of the small, lightweight, laptop PC market with its Dynabook series – now faces competition from Sony, which introduced its Palmtop PTC-500 in April. The machine, the size of an A-5 sheet of paper and weighing just 1.3 kg, sells for Y198,000. It has similar capacities to laptop PCs, and an extra feature which Sony hopes will boost sales: users can write directly onto the screen with an electronic stylus and, due to fuzzy theory techniques, the machine can decipher unclear handwriting.

Supercomputers, the top of the mainframe range, are incredibly fast, high-capacity units used by scientists designing aircraft, weapons and other state-of-the-art products.

Pressure had been building up as American makers, led by Cray Research, were finding it almost impossible to break into the highly-protected public sector supercomputer market, where Japanese makers' unrealistically low bids were invariably accepted by the Japanese government. The issue was one of three discussed in the bi-lateral Super 301 trade talks.

Report by MARTINA GANNON in Tokyo

Following the March agreement, Japan's three leading supercomputer makers, Fujitsu, NEC and Hitachi, will face competition from US and other makers. The Japanese machines are well ahead in peak performance ability, but lag in average operating speed, industry sources say. The leader, Fujitsu plans to launch what it calls the world's fastest supercomputer this year. The VP2000 will have a maximum calculation speed of 4bn flops a second. That is eight times faster than Cray Research's Y-MP unit, but the US machine features eight simultaneous processors, compared to the VP2000's two.

Daihatsu Motors, a minicar-maker, agreed in March 1990 to purchase Cray's Y-MP2/116 model for $6m. It will be installed in October, for collision analysis in the development of new vehicles.

Fujitsu, leader of the medium-sized MF sector in the year to June 1989, appears to have been overtaken by its rival, Hitachi, which recently launched a mainframe operating system compatible with IBM. The firm claims the data-processing capacity of the V053/AS is 8,000 times greater than other systems. It provides 16 trillion bytes for data storage and processing.

Market watchers attribute Hitachi's success in developing the system to secret agreements made with IBM during the 1980s. Fujitsu, on the other hand, became embroiled in a long and heated copyright dispute with the US giant, eventually settled by the American Arbitration Association ordering Fujitsu to pay IBM about $400 m. IBM was required to provide the Japanese firm with certain information necessary for software development.

The desk-top publishing (DTP) and electronic filing systems market has not yet reached its full potential, held back by high costs and poor software compatibility. Another area Japanese computer makers lag behind in is the creation of innovative software.

Ricoh, Tokyo Computer Service and Computron plan to set up a joint software developing company in April. The firm targets initial year sales of Y200m. Ascii Corp., a Tokyo-based computer software and publishing company constrained by high city land prices, is planning to build Japan's first high-tech urban development. In the unique project, the firm aims to establish a personal computer software development and semiconductor production base and a city of about 50,000 people by the year 2000.

So the domestic computer market in Japan appears to be flourishing, despite setbacks caused by non-standardized equipment and non-compatible operating systems. One area in particular to watch will be notebook-type computers. The Japanese skill for producing small but high-performance units is boosting this already competitive market. About 200,000 machines were shipped in 1989 and that figure is expected to more than double in 1990, according to telecommunications marketing firm Aquarius.

A computer specialist at IBM's Havant manufacturing plant, near Portsmouth, checks a 3.5in disk drive. IBM, the world's largest computer company, has recently fared better in the UK than the US.

THE US MARKET

Uncertainty prevails

JOHN AKERS, IBM chairman, late last year had a succinct prognosis for the state of the US computer market: "Stress and turmoil."

His words have seemed prophetic as the accelerating pace of technology change has combined with sluggish economic conditions to create enormous uncertainty throughout the computer industry.

The effects are being felt even among the industry's giants: International Business Machines and Digital Equipment have both undertaken major efforts to reduce their US workforces. Over the past year some 40,000 jobs have been lost in the US computer industry.

Sales of computers in the United States this year are expected to total about $80bn. More than half of this amount will be accounted for by sales of desktop personal computers, which sell for an average price of less than $5,000.

This enormous volume of sales – more than 12m units – is nonetheless seen as a "slowdown" by many market analysts. It represents a growth rate, over 1989 sales, of less than 9 percent, far lower than the personal computer market's growth of 20 percent and more in previous years.

The "squeeze" in the personal computer market is being felt primarily by lesser players while the market leaders - IBM, Apple Computer and Compaq Computer are gaining market share.

John Akers, IBM's chairman: prophetic words

While personal computer market growth is slowing, more powerful computer workstations are expected to maintain a heady 25 percent growth rate in the US this year to achieve total sales of close to $4bn.

Workstation market leaders Sun Microsystems, Hewlett-Packard and Digital Equipment are involved in a pitched battle to outdo each other in terms of performance and price. Profit margins are being squeezed as prices are slashed. Digital Equipment, earlier this month, cut prices on its low-end workstations by 25 to 40 percent, for example.

The performance of these desktop "hot boxes" continues to accelerate, fueled by advances in microprocessor chip design.

International Business Machines re-entered the workstation fray late last year with the launch of a new range of products that outperform all comers.

IBM is expected to win a 10 percent share in the $6.5bn world market for workstations this year to become a serious contender for the first time since the workstation market took off in the mid-1980s.

The increasing power of workstations and personal computers represents a major challenge to the traditional suppliers of multi-user "mid-range" computer systems based upon minicomputers.

Digital Equipment, the leading minicomputer manufacturer, has addressed the challenge head on by mounting its own workstation defence. This month Digital unveiled a new range of high performance workstations aimed at both office and engineering applications which are providing performance close to that of IBM's new offering.

Hewlett-Packard, the number three US computer manufacturer after IBM and Digital, has similarly launched a renewed offensive in the workstation market through its acquisition of Apollo Computer.

The proliferation of desktop workstations and personal computers led to the need for "local area networks" that link the desktop machines to allow them to share data. Now, the scope of networking is quickly growing to encompass all of the computer systems in a corporation – known as "enterprise wide" networks.

Plugging together existing and new computers of different types from several different manufacturers is a major challenge. Unless it is done right, the result can be a system that uses much of its computer power just to translate data into forms that can be "read" by each of the computers on the network.

The need for "inter-operability" between computers from different manufacturers is accelerating the trend toward "open systems" based upon industry standards, rather than proprietary systems.

In tandem with this switch is the move toward distributed computing based upon the "client-server" model in which "client" desktop computers share the resources of "servers" such as printers, data-base storage systems and high speed computing units.

All major US manufacturers have endorsed the concept of "open systems." Some, however, have done more to implement industry standards than others. Hewlett-Packard, an early proponent, is championing "open systems" throughout its product range.

Digital Equipment is also moving toward open systems, with its latest workstations and servers. Digital says that it aims to be the top supplier of open systems in the 1990s.

The growth of distributed computing is changing the role of the mainframe computer from that of a central "host" to that of a network "server." Mainframe computer sales, dominated in the US by IBM, remain strong, the company claims. IBM is increasingly challenged, however, by the plug-compatible mainframe computer manufacturers, Hitachi Data Systems (formerly National Advanced Systems) and Amdahl. Price competition in this segment of the market has become fierce over the past year.

Over the past year some 40,000 jobs have been lost in the US computer industry, reports LOUISE KEHOE

Mainframe computers, far from being the dinosaurs, still represent about 25 per cent of total computer revenues in the US. With anticipated growth at a modest 4 per cent per year, however, the influence of the mainframe on the overall market is gradually diminishing.

At the very top of the performance scale in computing, there has been a proliferation of new approaches to "supercomputing" with the emergence of new important classes of computers known as mini-supercomputers and parallel mini-supercomputers from companies such as Convex Computer and Alliant.

These systems provide power close to that of a multi-million dollar supercomputer – for a fraction of the price.

The US computer market in 1989 with forecasts for 1990 and 1993 ($m)

	1989	1990	1993
Total computer systems	72.1	80.0	106.9
Corporate resource computers	15.0	15.7	18.8
Business unit computers	5.8	6.4	8.3
Large department computers	4.2	4.4	5.1
Small department computers	3.3	3.4	3.8
Work group computers	4.3	4.3	4.5
Workstations	2.9	3.6	6.3
Personal computers	36.6	42.1	60.3

Source: Dataquest

US computer manufacturers, 1989 revenues

	$bn	% change 88-89
IBM	58.1	6
Digital Equipment	12.5	2
Hewlett-Packard	8.1	25
Unisys	7.6	1
NCR	5.3	0
Apple Computer	5.3	21

WEST GERMANY

Wave of mergers predicted

NIXDORF made its reputation by standing tall to computer giants such as Siemens and promoting its own proprietary operating systems – the kind of pride which helped cause the company's financial problems and made it vulnerable to a takeover.

Nixdorf had previously known only successes; it could not recognise the need to adapt to market changes early and concentrated too heavily on geographically narrow markets. It needed a partner with a stable financial base, and Siemens – with the joint acquisition of Plessey from GEC and Rolm Communications from IBM behind it – easily added Nixdorf to the list.

Few analysts believe Nixdorf will be Siemens' last acquisition – and many predict an uncertain future for other companies, such as SEL, ICL and Philips in the light of Siemens' drive to become the industry's pan-European player. In the words of one telecommunications company spokeman: "Nixdorf's fate unfortunately awaits still more companies."

International Data Corp (IDC) marketing executive,

'Companies no longer have a choice. In the long run, it's either acquire — or be acquired'

Mark Buffett, said he expects other computer firms to join Siemens – or be "swallowed up by it."

He does not hold Siemens to be a "direct threat" to other information technology (IT) companies, but does maintain that the creation of Siemens-Nixdorf Informationssysteme AG signals the start of a wave of mergers and acquisitions that will drastically change Europe's computing landscape.

Buffett added: "Companies no longer have a choice. In the long run, it's either acquire or be acquired."

In the end, Buffett says, Europe's computer industry will be populated by a number of small companies catering to *niche* markets and a handful of "global player" computer giants - one of which will "inevitably" be Siemens.

Based on information from IDC's trends and issues report, the union of Siemens and Nixdorf creates an IT operation which rivals IBM in Europe and has successfully bumped DEC down a notch to third place.

In terms of the home market of West Germany, Siemens and Nixdorf overhaul IBM to take first place. On 1988 revenues for Western Europe, Siemens-Nixdorf would have IT revenues of nearly $8.2bn, some 73 per cent more than their nearest rival DEC, but still only 40 per cent of IBM's revenues.

For this reason, Buffett says, the balance in Europe has been affected – a development that will "force DEC and others to take a good hard look at their marketing strategy for the future."

The strengths of the Siemens-Nixdorf fusion do not rest in the size of the operation alone, says IDC. The power of the combination rests in the fact that Nixdorf's strengths complement Siemens' weaknesses. Nixdorf has been able to build up its market presence in France, Spain and Britain – the same countries in which Siemens has been unable to hit the mark.

In 1987-88, for example, Nixdorf increased its market share in the UK by a total of 40 per cent. It also enjoys a small but significant US presence which provides Siemens a chance to penetrate the US market with its telecommunication equipment. In terms of the actual product lines, Siemens is strong in the large-scale systems sector, while Nixdorf has its strength in the small-scale system sector.

The report concludes that the two together create a powerful global player, and, as a result, become "the largest indigenous computer company, and one which can more readily compete with its US counterparts."

The Frankfurt-based Diebold Germany analyst, Dr Gerhardt Adler, says IBM and DEC do not have reason to fear competition from Siemens-Nixdorf yet – that will come when other companies forces with Siemens-Nixdorf to make a super-sized computer company.

Adler says the fusion only marks the start of further such alliances, and ones that will not necessarily exclude the Americans.

Diebold's director of business planning, Dr Fritz Jagoda, takes the scenario a step further and says he can imagine the eventual formation of a kind of "Trans-atlantic alliance," spurred on by the fusion of the possible involvement of AT&T.

Siemens-Nixdorf have changed Europe's computer landscape, but Dr Jagoda contends the companies neither upset the balance nor present a threat. He adds: "The development has upset the calm in the DP industry."

While it is clear that the formation of Siemens-Nixdorf will change the industry, may present a threat and does signal the beginning of what IDC calls "another chapter in the dynamics of the European computer market," analysts are unclear about what problems the companies, as well as their users, can anticipate.

Siemens-Nixdorf is faced with the problem of pulling together two very different corporate cultures and two largely dissimilar approaches to customer support.

The Siemens user group, Siemens-Informationstechnik Anwenderverein (SAVE) fully supports the fusion because it offers users with a strong global supplier. But a number of problems face Europe's users, according to SAVE spokesman Joachim Zeller. He lists the difficulties: Siemens and Nixdorf might be more concentrated upon themselves than concerned about the customers' problems – and a drop in overall quality might result.

'The strengths of the Siemens-Nixdorf fusion do not rest in the size of the operation alone'

The Reading-based X/Open vice-president of communications, Paul Tate, says the fusion "might not necessarily be the best way to respond to the growing demand for a pan-European network, but it represents one way in which companies can come to terms with an increasingly market-driven industry."

Mr Tate says he does not recognise the presence of a threat since "weights are only being re-arranged at one end."

X/Open is an independent non-profit consortia, established in 1984, "to bring greater value to users from computing through the practical implementation of open systems."

On the subject of open systems, Mr Tate says that Siemens-Nixdorf could end up indirectly supporting X/Open's goals because it creates a major force in supporting standards."

Some analysts maintain the fusion could even speed Europe's move towards standard solutions. Both Siemens and Nixdorf support these so-called open systems. Siemens' solutions are based on the Unix operating system, and Nixdorf has also put more effort into Unix systems after realising that it was the company's own refusal to move to open systems which accelerated its slide in the first place. Open standards are supported by the European Community. Supporting counties promote Unix because it allows compatibility – a significant plus in intra-governmental communications in a Europe without borders.

'The Siemens-Nixdorf fusion marks the start of further such alliances'

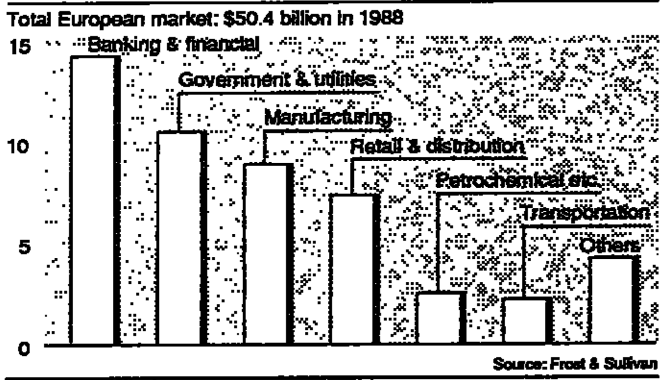
So far, IBM and DEC have been able to ignore this trend and promote their own proprietary systems. As a result, Unix-based systems remain largely incompatible with IBM and DEC systems – and often the user has to suffer the consequences. But Diebold's Dr Jagoda says this, too, will change. Unix, he adds, has not been forced enough by the EC, but it will "receive a push from Siemens-Nixdorf."

Peggy Trautman

A patient monitoring system in West Germany: here, a technician operates a patient data management system, produced by Hellige of Frei burg. The system provides centralised monitoring of car diac-risk patients — a data storage facility provides mor e than 58 hours of electro-car diogram readings, allowing doctors to check amd analyse heartbeat irregularities.

European computer hardware

Total European market: $50.4 billion in 1988



Source: Frost & Sullivan

FRANCE

Producers sailing in rough waters

LIKE its competitors, Groupe Bull, the flagship of the French computer industry, is sailing in rough water these days.

Mr Francis Lorentz, its 48-year-old chairman, took over from the retiring Mr Jacques Stern at the helm of the state-owned company last summer at a particularly troubled time in its perenially difficult fortunes.

The company, which rivals Siemens of West Germany for first place in the European computer market, reported a Ffr267m loss for 1989, the first time it has fallen into the red for three years; it was a symptom of the problems affecting the world's leading computer manufacturers.

The reasons for the loss are a combination of production difficulties at Bull's enormous printed circuit-board plant at Angers, the dollar's unexpected strength – which meant Bull had to pay more for semiconductor chips and peripheral equipment – plus heavy restructuring costs.

There were also the charges associated with assimilating last year's acquisition of Zenith Data Systems, the US microcomputer producer, still marred by a disagreement over the price that Bull should pay.

Last year's results are even worse that earlier predicted by a cautious Groupe Bull, which comprises Bull SA and Bull HN, the former US-based Honeywell Bull, 69.4 percent owned by the French company, with 15 per cent held by NEC of Japan and 15.6 per cent by Honeywell of the US.

Yet Mr Lorentz, who like many of the French state sector's management elite, is a product of the Ecole Nationale d'Administration, feels that future presents as many opportunities as challenges for Bull.

"The market is not fundamentally saturated," he told a recent press conference.

At the same time, Mr Lorentz has no doubts about the seriousness of the slowdown, even for microcomputers, which he argues will continue to bring realignments and acquisitions, of which Bull's own takeover of Zenith is a prime example.

Like its competitors, Bull sees the main factor behind the industry's upheaval as the shift away from the central corporate computer towards data processing using smaller and cheaper machines.

This has encouraged the emergence of the wide range of industry standard, low margin products, particularly from South East Asian suppliers, which has, says Bull, been accompanied by price competition of the toughest type.

So how are Bull and its new chairman responding to the deep changes reshaping the world computer industry?

On taking over last June, Mr Lorentz, who joined Cii Honeywell Bull as president and chief operating officer in 1982, outlined six key objectives for the group, the first of which is to become by the middle of this decade Europe's top supplier of integrated systems.

By this he means a group that puts together different kinds of computers and software for the whole range of specific applications, so adding value to basic hardware, a policy already being followed in a number of specialised areas by Bull's main European competitors.

The second is to develop products suitable for networking with hardware from other suppliers.

Bull is already doing this by integrating its own proprietary machines with products based around the Unix operating system, as well as through its role as being a founder member of the Grenoble-based Open Software Foundation, for the development of industry standard software.

Mr Lorentz believes these ambitions can only be realised if Bull is active in the US, a development needed to establish its image as a world player, as well as to gain access to technology there. Clearly, the takeover of Zenith has been a big step in that direction, lifting Bull from the world's tenth to its seventh largest computer manufacturer. Bull, which now makes 70 per cent of its sales outside France – last year's total turnover was Ffr32.7bn – plans to be among the top five in the early 1990s.

Zenith gives Bull a complete microcomputer line, from "low end to high end, for both desktops and laptops and substantial market positions both in North American and Europe, and sufficient volume to compete effectively on a global scale," said Mr Lorentz at the time of the takover.

Francis Lorentz says that the future presents as many opportunities as challenges for Bull

His fourth goal is to improve Bull's productivity and profitability, mainly through simplifying the product line and trimming development costs, a process which Mr Lorentz believes will take four to five years.

Linked to this is goal five – to boost management skills, an area which Mr Lorentz feels has received insufficient attention over the year because of the problems faced by both Groupe Bull and Honeywell Bull.

The final aim is to encourage Bull to behave more like a single European company, rather than two separate businesses, by hiring staff at a European level and setting up common training programmes.

Earlier this year, Mr Lorentz unveiled a far-reaching reorganisation, designed to give Groupe Bull a more coherent structure to help it tackle the fast changes in the computer industry.

It involves splitting the group into four units, reporting to a central entity, Compagnie des Machines Bull, which will have responsibility for strategy, product line policy, human resources and the integration of research and development across the world.

The units are:

- Bull SA France, with 19,000 people running development, manufacturing and sales in France.
- Bull International SA, with 6,000 people running most of Europe, plus Africa, Latin America and south-east Asia.
- Bull HN, comprising 19,000 staff responsible for North America, Mexico, Italy, Britain and Australia.
- Zenith Data Systems, in charge of development, manufacturing and sales of the group's worldwide microcomputer and workstation products, accounting for roughly a third of the French group's overall sales.

If that is Mr Lorentz's battle order for the start of the decade, the signs are that he has not finished yet.

When asked by a French business magazine recently whether he might consider some form of alliance with Siemens, Mr Lorentz replied: "Two businesses can be competitors and partners at the same time.

"In the face of the Japanese threat, it is desirable that we have a common European stance . . . I have a certain number of ideas for ambitious projects."

Henri Labrit

Mr Francis Lorentz, chairman of Groupe Bull: ideas for ambitious projects

FORTHCOMING FT SURVEYS

Computers and communications

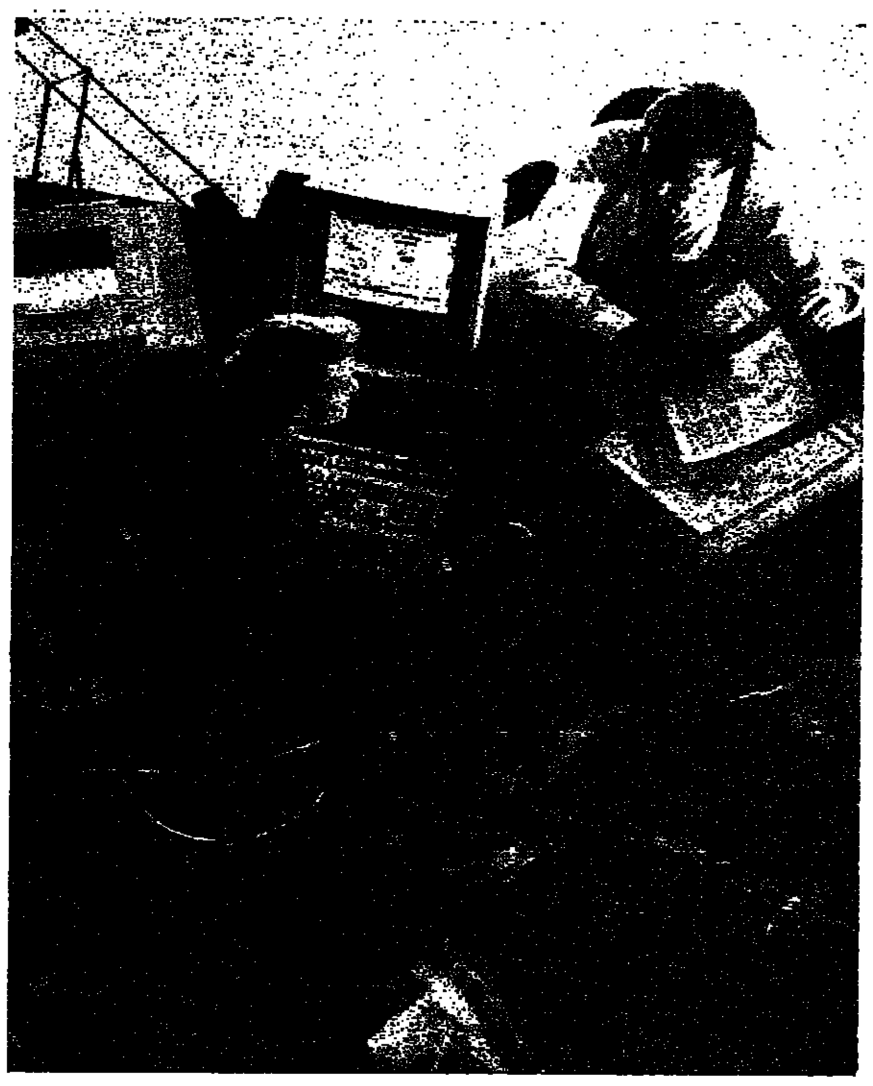
AMONG the forthcoming FT surveys related to the computer, electronics and communications industries will be the following:

☐ Automatic Identification .... May
☐ Computer Security .... June
☐ Japanese Computers .... June
☐ Desktop Publishing .... June
☐ Personal Computers .... September
☐ Office Systems and Technology .... October
☐ Using Computers .... October
☐ Computers in Finance .... October

Among the recent surveys which have featured computer-related topics were EUROPEAN HIGH TECHNOLOGY, published on Tuesday, March 20, and INTERNATIONAL TELECOMMUNICATIONS, on Thursday, April 19, 1990.

Editorial synopses for these surveys can be obtained from: The Financial Times, Number One, Southwark Bridge, London, SE1 9HL. Tel (01) 873 3337 (direct line to Carol Bileichuk, who also has the publication dates of other surveys already published).

AST: Ten Years Of Achievement



Founded in 1980, AST Research was one of the first companies to offer expansion boards to increase the power and functionality of the IBM PC. One of their first products, SixPakPlus, was to become the largest selling enhancement board in history, and is still one of the most popular products of its kind today. But that was only the opening chapter in AST's rise to becoming one of the world's most respected makers of microcomputers and related products.

The early days of enhancing IBM's open architecture PCs provided a strong foundation for AST to apply its expertise. And in late 1986, they introduced the ultimate enhancement — their first computer, the AST Premium/286. Building on an excellent reputation for hardware and software compatibility, quality and reliability, the Premium/286 was a runaway success with both industry experts and customers.

Able to build on a strong multiple channel distribution strategy put in place for the earlier board-level products, AST computers were soon being marketed through a variety of channels throughout the world including major chains, independent dealers, value added resellers (VARs), large distributors, OEMs and U.S. government (GSA) approved dealers. Now, AST computers are found on desktops in businesses everywhere — from the very small to over 60% of the nation's largest — and in government agencies.

Today, AST offer a full family of computers — one for every performance and price range, for a variety of business and personal applications — from the entry-level Bravo/286 and Bravo/386SX to the high-performance Premium 386 and i486 based systems. They also continue the tradition of enhancing systems by offering award-winning memory, multifunction and graphics products, and provide for customers' connectivity needs with LAN, 5250 and 3270 products.

A cornerstone of AST's technological leadership is the growing popularity of the patent-pending Cupid-32 (Completely Universal Processor, I/O Design) architecture. This technology separates components according to whether or not they are likely to change as microprocessors advance. All hardware that is dependent on the type and speed of the processor, including the microprocessor, cache memory and numeric coprocessor are located on a plug-in, printed circuit board.

As a result, customers can avoid desktop obsolescence by upgrading AST's Cupid-32 Premium computers to the next level of performance by simply replacing a board. Upgrades can be completed in a matter of minutes, and can be accomplished throughout the Premium product line, from 386SX to i486-based products and beyond.

The underlying flexibility of Cupid-32 technology also allows AST to respond to changing market conditions with a very rapid product development cycle. In fact, AST was the first company to announce shipments of ISA i486 computers based upon Intel's production release version microprocessor.

AST's corporate headquarters are in Irvine, California but they are truly a worldwide company, marketing products in more than 77 countries. They also build them around the world, and design them to fit international requirements — AST manufacturing facilities are located in the United States, Hong Kong, Europe and Taiwan and AST support them wherever they are installed with offices established throughout the U.S., Europe and in Canada and wholly owned subsidiaries in the United Kingdom, France, Germany, Switzerland, Italy, Hong Kong, Taiwan, Australia and Japan.

Over 2,000 employees are dedicated to delivering the highest quality desktop computers and related products. It's a commitment that begins long before the products reach the desktop. And it's demonstrated in every area of the company.

AST's engineering and marketing teams work closely together to design innovative products answering the needs of the marketplace. Starting at board level design, AST uses CAD/CAM and surface mount technology to reduce component size and product cost. ASIC (Application Specific Integrated Circuits) technology is another key strategic asset allowing AST to remain a leader in product development. With ASIC, AST can envisage and create custom products that provide exceptional value and ease of upgradeability.

AST's commitment to quality is second to none, and it allows them to boast one of the lowest return rates in the industry. Thorough examination and testing are prevalent throughout the entire manufacturing process, including a complete burn-in process for every computer. Reliability labs, agency compliance testing (FCC, UL, CSA, VDE, etc.), product safety labs and compatibility labs also ensure quality. A few of their commitments to compatibility include unique enhancements to BUS technology allowing faster operation and selectable CPU speeds for strict software compatibility.

AST are dedicated to their customers. AST's Product Support Centres are staffed by fully trained technical support teams available to answer any question by telephone as well as 24-hour on-line electronic systems which provide a variety of information, including free software upgrades. Should an AST product ever need repair, service centres and optional on-site service is available throughout the world.

With so many great products, dedicated employees and strong resellers, AST's future never looked better.

A LEGACY OF AWARD-WINNING PRODUCTS

1983

- *AST's first memory/multifunction board, ComboPlus™, earns two first-place titles in the PC "World Class" Competition.*

1984

- *SixPakPlus® ranks No. 1 on the Softsel Hot List for the first time. It would remain on the hot list for most of the next five years. It becomes the standard against which all multifunction boards are compared.*
- *SixPakPlus named the favourite memory/multifunction by PC World readers in its "World Class" competition. Readers would choose it again for the next five years. SuperDrive chosen top disk emulator.*

1985

- *Rampage!® selected the "Most Significant Product Of 1985" by PC Week.*
- *AST's LAN product ranked among top six by PC World.*

1986

- *Rampage! rated excellent in five categories and earns top score by The Journal of Corporate Computing.*
- *Computer Reseller News names AST top add-in board supplier.*

1987

- *AST Premium/286 awarded Editor's Choice by PC Magazine.*
- *"The Best Of 1987" award is presented to AST for the Premium/286 by PC Magazine.*

1988

- *Premium/286 merits PC Digest's top rating, and is the only system to earn overall rating of excellent.*
- *LAN Magazine recognises the AST Premium Workstation/286 for its sleek design.*
- *Premium/386 named top-ranked 386 system by InfoWorld.*
- *AST picks up Reader's Choice awards in six categories of PC World's "World Class" competition — AST Premium/286, SixPakPlus, Rampage-AT, Advantage® Premium and SikPak-Premium with the Premium/386 voted one of the most promising newcomers.*
- *AST rated number one in technical support in PC Week survey.*

1989

- *RampagePlus 286 voted best EMS 4.0 board and wins "Product Of The Year" award from InfoWorld.*
- *Byte magazine gives AST an award of excellence for its work with EISA.*
- *AST Premium 386/25 earns the highest score for 32-bit memory upgrade in PC Week "Scoreboard."*
- *InfoWorld magazine gives the AST Premium 386/33 its "Best in its Class" distinction.*
- *Government Computer News readers select the AST Premium/286 as their top choice.*
- *PC World selects the AST Premium 386/33 as its "Best Buy".*

1990

- *AST Premium 386SX/16 earns the PC Magazine Editor's Choice award.*
- *The German publication, Computer Persönlich, reviews the AST Premium 386SX/16, ranking it number one.*

AST COMPUTERS

The No. 1 Alternative

To receive a complimentary video tape on why more Fortune 500 companies are asking for AST computers, call the AST Information Service on 0923 210490.

Manufacturer's profile: Olivetti of Italy

Bullish about the future

Report by HAIG SIMONIAN

WITH LAST year's earnings at Olivetti, Italy's leading computer manufacturer, due to be announced in a matter of days, there are no prizes for guessing which way profits will go.

Speaking to the press in February, Mr Vittorio Cassoni, the group's highly-regarded managing director, admitted that net profits would fall by slightly less than the 45.7 per cent average posted by the 18 leading US computer hardware makers. First half pre-tax earnings have already fallen by 40 per cent to L103bn.

And, although sales rose by 7.5 per cent to over L9,000bn from L8,407bn in 1988, the company warned that its dividend would be cut from the L340 a share paid previously.

While analysts and shareholders wait to hear the full results, Mr Cassoni himself remains bullish about the future. Pointing to the severe problems of rapid downsizing and sharply declining margins which have afflicted much of the world computer industry, he argues that Olivetti has already crossed a bridge that some of its competitors have yet to confront.

Underlying his confidence is the radical restructuring which Olivetti pushed through in 1988 whereby vertical integration gave way to a much more market-dictated organisational strategy. Jobs have been cut – with the prospect of some further small loses to come – while the company had addressed the problem of product innovation through a new family of powerful workstations based on "open systems".

Olivetti's most recent launch, its CP486 "computing platform" unveiled last October, and one of the first machines in the field based on Intel's new 486 microprocessor, marks a further blurring of the traditional divisions between minis personal microcomputers.

Confusing at the outset, the group's current division into four separate operating companies has been an essential tool in surviving the far more difficult trading conditions now facing the industry, insists a spokesman.

Based on its 1989 figures, Olivetti Systems and Networks (OSN), the main subsidiary designing and producing personal computers, minicomputers and local area networks, accounted for about 55 per cent of group sales last year, with some 27,000 employees and sales of around L5,000bn

Meanwhile, Olivetti Office, which is responsible for a range of office equipment, including typewriters, faxes and computers, follows with 36 per cent of turnover. Then comes Information Services, the system integration division, with 5 per cent, and lastly, the Technologies Group, which makes a range of hardware for the information technology business accounting for about 4 per cent of total sales.

As a second part of the strategy, the company has been attempting to build on its already established presence in areas like banking branch automation and government business, where it has a sizeable market share.

Following its $174m purchase last year of ISC, a US banking automation equipment maker which has been combined with Olivetti's existing Bunker Ramo subsidiary, the group has jumped to second place among makers of bank automation computer systems in the US, with a market share of around 28 per cent.

Recent months have brought a host of international orders for the group's banking technology. Last month Lyonnaise de Banque, the French financial institution, added its name to the list with an order for 600 of Olivetti's mid-range P500 personal computers to be used as work stations for automating back office functions.

The value of the order has not been disclosed, but Olivetti is hoping that it may be selected to fill the rest of the bank's 1,650 unit total requirement.

But "order of the year" still goes to Rabobank, the Dutch banking group, which last year announced its plan to buy 2,000 Olivetti LSX minicomputers and 25,000 PCs, representing an initial investment of Fl 750m.

Meanwhile in the UK, the company has scored a hit by being chosen by the Post Office for an order to help automate its business, as well as supplying computers to a number of leading building societies.

While there has also been progress on the government side, Olivetti's hopes of breaking into computers for the retailing business remains largely in the pipeline. The rationale behind the strategy is clear. There are close similarities between banking and retailing automation, as Mr Cassoni points out.

Moreover, the two areas are, if anything, drawing steadily closer thanks to the growing presence of electronic point of sales technology. However, major orders have yet to come for Olivetti.

Meanwhile, the company remains tight-lipped about potential collaborative deals, such as the recently reported suggestions of a link with Philips – "exploratory talks are ongoing as regards specific technological areas, among which are printers and components" says a spokesman. But any suggestion of closer collaboration, or of Philips bidding for the Italian group, which last year was the world's second biggest producer of PCs in terms of volume and fourth biggest in terms of value, is strenuously denied.

Likewise rumours about changes of ownership of any of its operating divisions. Such talk has become more prominent since the 1988 restructuring, which potentially made it easier for the company to spin off specific parts of the group. Against the background of the last year's collapse of its reciprocal small computer marketing agreement with AT&T, the US telecommunications giant, which has a direct interest in Olivetti. The room for such speculation has undoubtedly grown.

Events so far have confirmed the company's intention to retain its present structure and fight out any problems in the market-place, although the message has still not fully penetrated the bourse, where the group's shares have moved with every new hint of change. With the additional responsibility for OSN now on his plate, following the decision by Mr Luigi Merrurio, its managing director, to step aside, it is now up to Mr Cassoni to show that Olivetti is on a steady – and winning – course.

Louise Kehoe sums up the world of supercomputers

A 'mini' transformation

THE SMALL, exclusive world of supercomputers has undergone a profound transformation in the past few years. In 1988, it was a simple business, dominated essentially by two companies, Cray Research and Control Data, both of the US.

Cray had a two-thirds share of the 350 or so true supercomputers installed worldwide. While there were reports of very fast machines from the Japanese manufacturers, Fujitsu, Hitachi and NEC, the US companies seemed to have a stranglehold on the market for the foreseeable future.

Since then everything has changed, and the market is in a state of flux. The major differences are:

■ The overall supercomputer market is fragmenting into a series of niche markets, each distinguished by a particular technology and a particular level of price performance.

■ Cray, while still making the fastest available commercial computers, is finding it difficult to dominate the new market as easily as it did the old. Cray itself has split off its advanced systems division under the direct control of founder and chief designer Seymour Cray as a separate company to protect its development activities from the vagaries of the stock market.

■ Control Data, with a history of shaky finances, decided to pull out of supercomputers, rather than continue to invest the $100m or so each year in research and development expenses to stay ahead of the game.

■ The rise of the minisupercomputer, exemplified by machines from Convex Corporation, has opened the frontiers of supercomputing to a broader group of customers.

■ IBM, after an absence of some years, is once again a supercomputer manufacturer.

■ The full strength of the Japanese challenge has yet to be revealed, but nobody doubts they are already a force to be reckoned with.

What has made the difference is the emergence of computers with a substantial proportion of the performance of a traditional supercomputer at a fraction of the cost. The pioneer was Floating Point Systems but the leader today is the US company Convex.

The rationale behind the success of Convex, whose sales rose by almost 60 per cent in 1989, is that while many companies have tasks which require near-supercomputer performance, very few companies can justify the $15m to $25m asked for a top-of-the-range Cray or NEC machine.

Stardent's 2040 series graphics and departmental supercomputers range

But there are a host of tasks to which near-supercomputing power can be put. The design of pipework, architectural structures, mechanical simulations and so on. According to the most recent figures, technical computing, which includes scientific and other forms of numeric-intensive computing, will represent about 23 per cent of the $204bn market for data processing equipment by 1993. Technical computing is growing at 18 per cent a year worldwide, 23 per cent in Europe.

High-powered workstations are also beginning to encroach on supercomputing turf. Figures from IBM on a reservoir modelling test program show that a Cray XMP completed the calculation in 2.9 seconds while a Convex C210 took 12 seconds. IBM's new workstation, the RS/6000, at 7.7 seconds, fell between the supercomputer and the minisupercomputer.

The threat from minisupercomputers is so strong that Cray has agreed to buy for $35m Supertek Computers, partly owned by Yokogawa Electric of Japan, and will market its S-1 minisupercomputer which is compatible with Cray's machinery.

At the other end of the scale, Seymour Cray has been developing the Cray 3, an innovative machine using chips made of gallium arsenide, giving about three times the speed of silicon, and which takes miniaturisation to such a degree that the system modules have to be assembled by robots. The new machine is expected to be launched next year.

Cray's business, however, is growing comparatively slowly – at about 8 per cent a year. Most companies which can justify the cost of a Cray have already made the investment, so the market is close to saturation.

There are also a number of specialised companies producing "massively parallel" supercomputers. Examples include the US Connection Machine, and the UK Meiko Computing Surface and AMT which markets a development of ICL's distributed array processor.

IBM has never been noted for its interest in supercomputers. More than 30 years ago it built a machine called "Stretch" and more recently offered its model 370/195 for scientific computation, but in general the world's largest computer company has always regarded the investment in supercomputing research and development as too great for the return involved.

Since 1986, however, it has installed its 3090VF model at more than 400 sites worldwide. Whether or not the VF (vector facility, the feature which gives the machine its ability to tackle scientific computations) is a true supercomputer, is really a matter of semantics.

For a large number of customers, the 3090VF represents affordable supercomputing power. A six-processor system costs in the region of $10m, about half the cost of a Cray or a Japanese supercomputer.

Mr Peter Rowan, manager of technical and scientific computing for IBM in the UK, says IBM's approach is quite different from Cray or from the Japanese manufacturers.

He anticipates a networked system where a RS/6000 workstation would be connected with the 3090VF and, possibly, a new supercomputer being developed with IBM's support by Steven Chen, an ex-Cray computer engineer. The Japanese manufacturers are still something of an enigma. They are worrying all the big supercomputer manufacturers. Mr Rowan says: "They scare me, because I do not know where they are coming from".

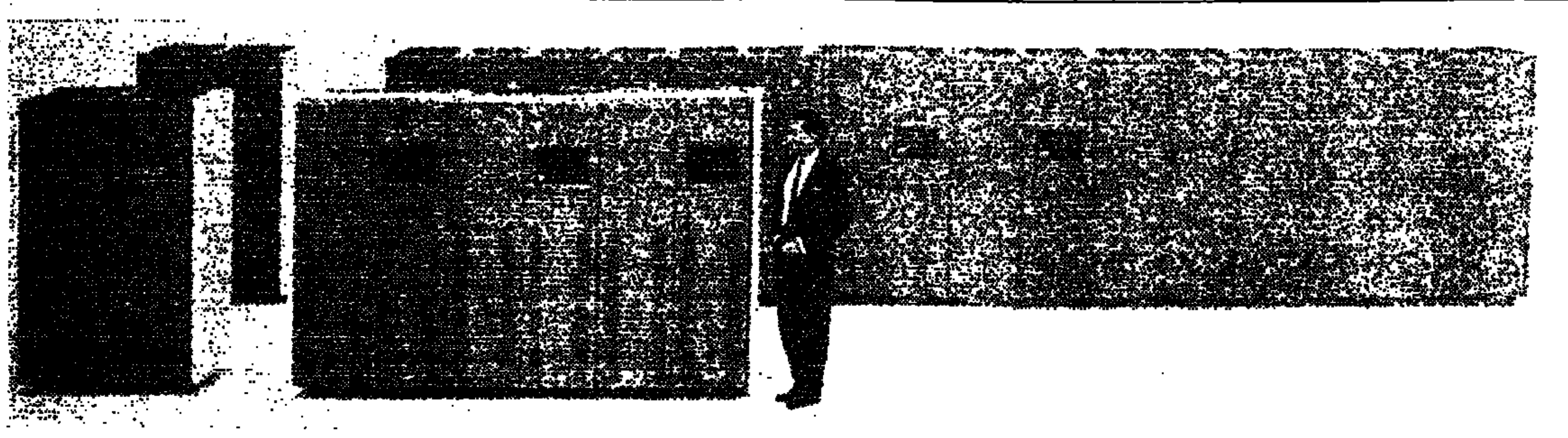
Since 1981, the six leading Japanese computer companies – Fujitsu, Hitachi, Mitsubishi, NEC, Oki and Toshiba – have been involved in a $100m project funded by the government to develop supercomputers 1,000 times faster than those available at the start of the project.

There are two principal research areas, densely integrated, high-speed logic and memory chips using gallium arsenide and advanced circuitry and high-speed parallel processing techniques.

The market is changing politically as well as technically. Last month, the US and Japan announced an understanding designed to help the US sell its supercomputers to Japanese government agencies and institutions by ending the sharp discounts offered by the Japanese computer manufacturers.

Louise Kehoe analyses the 'dinosaur' factor

Mainframes are alive and well



Smaller but faster: IBM's new 3390 Direct Access Storage device equals the capacity of the old 3380K in the background

REPORTS of the impending death of the mainframe computer have been greatly exaggerated. Far from being the dinosaurs of the computer age, as some have called them, mainframes will continue to play a vital role in business computer systems for the foreseeable future.

The introduction of desktop workstations with "mainframe computer performance" is often mistakenly seen as the death knell of traditional mainframe computers. While the latest microcomputer technology can indeed shrink the raw processing power of a cabinet-sized mainframe on to a few chips of silicon, the two are hardly comparable in terms of the functions they can perform.

"While desktop computers have taken over word processing and spreadsheet applications which used to be performed by mainframes, these smaller machines cannot replicate the data storage and retrieval capabilities of the mainframes," argues Sanjiv Hingorani, computer industry analyst at Salomon Brothers.

This is not to say that sales of mainframe computers have not been impacted by the advance of microcomputer technology. Indeed, the mainframe segment of the total market is now significantly smaller, in terms of revenues, than the personal computer market.

Computer buyers are putting a larger portion of their data processing budgets into networking and desktop computers than they are into the purchase of new mainframe computers.

Computer manufacturers, driven by market trends, are similarly swayed toward emphasising microcomputers in their marketing, sales and development efforts.

The growth of the mainframe computer market has slowed significantly over the past few years.

Analysts forecast growth this year of about 4-10 per cent, far below the double digit growth rates of the personal computer and workstation segments.

World sales of mainframe computers costing more than $1m totalled $20.9bn in 1989, according to International Data Corporation, a US market analysis firm.

The analysts predict that in 1993, sales will total about $23.5bn, growing by just 12 per cent over four years.

Yet the rise of networked *computing, in which desktop*, minicomputer and mainframes are linked by corporate wide networks, may actually lead to a resurgence in mainframe sales in the mid-1990s, some analysts now believe.

In this "distributed computing" model the mainframe computer takes on a new role. No longer the central processor upon which most applications are performed, the mainframe becomes a repository for huge quantities of data.

"We believe mainframes will become database servers as opposed to application executors," says Mr Hingorani.

Leading US mainframe manufacturers are developing software and networking technology that integrate mainframes into heterogeneous computer networks and provide ways for workstations, personal computers and minicomputers to com*municate with mainframe.*

IBM, for example, has established its Systems Application Architecture which will link its incompatible product lines, ranging from PCs to mainframes, by defining the interfaces between software applications, databases and computer systems.

IBM dominates the world market for mainframe computers with an estimated market share of 60 per cent. Among US mainframe computer vendors, IBM's lead is even stronger, with a 75 per cent share of worldwide shipments by US companies in 1989.

However, competition is mounting, especially from Japanese makers of computers functionally equivalent to IBM's and able to run IBM software.

IBM's share of the "compatible" mainframe market fell to *about 83 per cent last year* from its traditional 90 per cent, according to market analysts.

In the second half of last year IBM mounted an aggressive effort to protect its market share and boost mainframe sales through heavy discounting which forced competitors to pare margins reducing profitability throughout the mainframe market.

According to industry analysts, IBM has now modified its strategy and prices are firming after a precipitous fall last year. None the less, isolated reports of heavy discounting by IBM continue in the US.

As the role of the mainframe computer changes, IBM is also facing increased competition from new directions. Last October, Digital Equipment entered the mainframe computer market with its VAX 9000, which it dubbed the "mainframe for the 90s".

With performance equivalent to that of IBM's most widely used 3090 mainframes, and significantly lower prices, the VAX 9000 represents an aggressive challenge to IBM.

Digital is not expected to steal large numbers of IBM customers who have huge investments in software and training that tie them to the number one computer manufacturer.

By extending its product line into the mainframe class Digital may, however, be able to prevent its minicomputer users from looking to IBM for more powerful computers as their needs expand.

Digital is also expected to win sales among users defecting from others such as Unisys, Control Data and Bull HN Information Systems (which includes Honeywell's computer *operations).*

The VAX 9000 is specifically designed to be linked into distributed computer networks, many of which already incorporate Digital's minicomputers.

IBM also faces increasing competition from companies such as Tandem Computers with its "fail-safe" computers, widely used in banks and financial institutions where a computer failure could spell disaster.

A new generation of computer manufacturers such as Sequent and Pyramid, offering powerful parallel processing machines built from hundreds of microprocessors also represent a challenge to established mainframe producers.

For IBM, the shifting patterns of mainframe computer sales comes at a difficult time. IBM's 3090 is nearing the end *of its product life cycle, according* to market analysts. Although some had expected IBM to offer a speeded up version of the 3090 later this year, industry reports now suggest IBM has abandoned plans for this performance booster.

It will be late 1991, according to analysts, before IBM begins shipments of its next generation mainframe computer, codenamed Summit, although the new product line may be announced this year. Summit is expected to provide a big performance boost that will stimulate demand.

By the mid-1990s, the convergence of new, more powerful IBM mainframes and increasing demand spurred by the spread of distributed computing may boost the growth of mainframe sales giving the "dinosaurs" a new lease of life.

Networked computer systems

Route to new corporate capabilities

THROUGHOUT the thirty-year history of the computer as a commercial product, the primary focus has been upon technology. As the fourth decade of commercial computing begins, however, computer manufacturers and users alike are finally turning their attention to the real purpose of computerisation – the quest for increased productivity and solutions to real business problems.

The technologies of the past three decades – mainframe computers in the 1960s, minicomputers in the 1970s and personal computers in the 1980s – all have a role to play.

LOUISE KEHOE highlights a fierce battleground in the "mid-range" computing field

To fulfil the promise of computing, and to meet the demands of users, the computer industry is increasingly turning, however, to a new computing model known as networked computing or client/server computing.

Networked computer systems link all of the computers within a corporation, preserving prior investments in hardware and software and adding new capabilities that greatly expand the scope of information services provided to individuals and to teams of people who work closely together.

In networked computer systems, the personal computer on the desktop becomes the window to all of the corporation's computer facilities. To users, it will make virtually no difference where data or applications actually reside.

Through transparent access, via networks and inter-networks, it will seem as if their own desktop systems are directly connected to corporate file systems, internal and external databases, electronic mailboxes, high performance processors and other facilities.

Network computing is creating new categories of computers which do not fit into the terminology of the 1980s. This new computing paradigm includes two types of computers – "clients" and "servers."

Client computers are desktop personal computers, terminals or workstations – the machines that deliver computing resources to individual users.

Server-computers cover a wider range of hardware types and can be broadly defined as machines that provide services to the networked system. In practice they can be as large as a mainframe computer or as small as a microcomputer.

In many cases they will be special purpose systems such as printers or data storage systems.

Servers co-ordinate the data traffic on a network and provide distributed services like shared file storage and retrieval and application process service.

Sharing high performance peripherals among many users reduces costs and off-loads tasks that would tie up a desktop computer for lengthy periods.

Although existing computers will often play the role of the server on a new networked computing system, several companies have recently introduced computers specifically designed to fit into the new computing model.

This intensely competitive field has become the new battleground in the "mid-range" computing field. Going head-to-head are the traditional minicomputer manufacturers such as Digital Equipment, IBM from the "mid-range mainframe" world, Sun Microsystems from its workstation background, and Compaq Computer with its base in personal computers.

All of these companies – and more – have over the past year introduced "servers" for network computing.

In addition, a new generation of specialist server computer companies is emerging. In the forefront of this trend is Netframe, a Silicon Valley company founded by computer industry veteran Carl Amdahl. Netframe offers purpose built servers, which it claims have several advantages over personal computers, minicomputers or mainframes adapted to the role of servers.

The growth of networked personal computers and workstations will nearly triple annual sales of servers over the next four years from their current level of about $4bn to close to $12bn, according to Forrester Research, a Massachusetts market research firm.

File servers are the most mature type of servers. These are systems that enable network users to share data, printers and other peripherals. The vast majority of file servers are computers that are adapted to their network management function.

A new generation of specialist server-computer companies is emerging

In the future, however, special purpose file servers such as those offered by Netframe are expected to play an increasingly important role.

Application servers represent an emerging segment of the computer market. These are computers dedicated to a single application such as database management, which perform the "backroom" tasks of the networked computer system.

Communications servers, which manage the links between computers on a local area network and between local networks and wide area networks represent another important segment.

Client-server computing redefines the roles of a wide range of computer systems and eventually will reshape the computer industry, many believe.

In the short term, it intensifies competition in the traditional "mid-range" computer market sector as industry leaders adapt their products to fit the new computing model.

Philip Manchester looks at the changing face of computer screens

Windows open on an uncluttered view

THE last couple of years has seen a startling change on computer screens. Gone are the days of the glass typewriter, where operating a computer consisted of mastering the art of advanced keyboard manipulation.

In its place is an attractive array of windows and icons which can be manipulated with a mouse pointer – what is known as "the Macintosh interface". If operating a computer is like driving a car, then the Apple Macintosh is the equivalent of the automatic gearbox.

Although not the first computer to feature what has come to be called a graphics user interface (GUI), the Apple Macintosh was the first computer to bring the idea (usually attributed to Xerox) to the mass market. It has taken somewhat longer for the GUI to percolate through to the world of commercial business computing. Paul Bailey, managing director of Lotus UK, suggests that this is because some business applications are not necessarily suited to mouse-plus-windows GUIs – "there is still a lot of the old camp who do not want to move on – particularly in the spreadsheet market. It gets in the way of the experienced user. GUIs give you lots of clutter on the screen – slider bars, ventilator boxes and so on – which take up a lot of valuable screen real estate," says Mr Bailey.

Despite this, Lotus has recently launched a "G" version of 1-2-3 which offers a GUI – with or without the mouse pointer. "Just because you are using a GUI does not mean that you need a mouse. You can use standard Lotus 1-2-3 keystrokes with 1-2-3 G or a mouse – or both together," says Mr Bailey.

Despite some user's desire to keep with the older style interface, there is evidence that a change has begun and the GUI is ready to be accepted by business. Microsoft, developer of the Windows GUI for the IBM PC standard, estimates that only 10 per cent of its existing MS/DOS users have bought Windows so far.

But it has seen an upturn in the last year and Microsoft chief executive officer Bill Gates recently said he expects Windows users will be 50 per cent of the MS/DOS base in the next couple of years. It is not just personal computers that are benefiting from better GUIs. The combined weight of suppliers looking for things to do with the powerful new microprocessor chip technology and the demand for an easier way to use computers has led to a wide agreement about what form the GUI should take.

Although there are variations, that form is essentially the Macintosh interface and it has become so important that it has sparked off a trail of litigation since the mid-1980s. But despite the legal conflict there has been unprecedented co-operation between manufacturers and broad agreement on many aspects of the GUI both externally – how it appears to the user – and internally – how it can be used by the programmer to make nice applications. It is about time. The issue of the interface between computers and people has been on the agenda at least since the late 1960s.

It emerged then because it was the first time that a large number of people were exposed to computers. It is to the shame of the professional computer industry that there was little real progress until the first personal computers came along a decade later.

Professionals seemed to be quite happy to use arcane languages and procedures to operate earlier computers. In the 1980s, however, progress has been rapid and, once the advantages of the Macintosh were recognised, it gained acceptance and is now firmly entrenched across a complete range of computers.

Apple may argue that its version of the interface is still the best one, but there are perfectly adequate GUIs for most computers now. The IBM PC standard has Microsoft Windows and Unix systems have a choice of several, including the Open Software Foundation's (OSF) Motif, SCO's Open Look and Sun's News.

IBM is even extending GUIs to its larger systems – under its policy of providing common user access under its Systems Applications Architecture (SAA). SAA uses a GUI called Presentation Manager, derived from Microsoft's Windows. But now that the form of the interface has largely been agreed across the industry, there are moves to extend the GUI beyond its purely operational role. And Apple, among others, is out in front – "we don't think you can just bolt on an interface – it must be crafted into the operating system," says John Leftwich of Apple UK. "But if you do build it into the operating system – it brings you other advantages. The new version of the Macintosh system software – System 7 – gives you a major one – inter-application communication or IAC," he says. "IAC is an extension to the Macintosh's cut-and-paste. It is a 'live' cut-and-paste which keeps references up to date."

Steve Jobs, the founder of Apple and its former chief executive, has built similar features into his Next workstation with the Nextstep software. And Microsoft is attempting to apply the same principles to its PC-based Windows software.

There is little doubt that computers are much easier to use as a result of GUIs. It has introduced a set of easy operational concepts – Apple rightly calls them intuitive – and has brought consistency across applications. The next important change will be to extend common interfaces into the realm of user-built applications – when it will be hard to tell the difference between Lotus 1-2-3, Wordperfect, dBase and a plethora of other products. Products will compete on the functions they can offer – rather than on their user interfaces. This is long overdue.

Personal computers have become the industry's driving force, says **Louise Kehoe**

Side-show steals the limelight

■ Joe McNally, vice-president and UK managing director of Compaq Computer, pictured with the original 28lb Compaq Portable (lower model) and the latest Compaq LTE taptop machine. This highlights the dramatic evolution of portable technolopgy in the last five years, driven by users' requirements for mobile computers, based on industry standards. The A-4 sized LTE offers full-function personal computing and weighs about 6lbs. Unlike its chunky ancestor, which earned fond comparisons with a sewing machine, it includes a 20Mb or 40Mb fixed disk and a battery to power the system.

THE personal computer revolution of the 1980s has been just the opening act of a drama that promises to be equally compelling throughout the 1990s. With world sales of personal computers expected to top $42bn this year, these desktop and carry-along computers have become the driving force in the computer industry.

More than half of all personal computers are now linked on networks, according to market researchers. This trend has significantly changed the role of the personal computer in office computer systems, making it an alternative to the traditional minicomputer with terminals. No longer a side-show to the mainstream data processing market, personal computers have become the centre of attention.

Personal computer hardware technology is following two parallel tracks. On the desktop, personal computers are becoming more powerful with the availability of a new generation of 32-bit microprocessors such as Intel's 486 and higher density memory chips.

Meanwhile, portable personal computers are quickly emulating the full functions of a desktop machine in ever smaller and lighter form – a development aided by the compression of personal computer functions on to as few as half-a-dozen semiconductor chips.

In the software arena, big changes are under way. Throughout the 1980s, the personal computer market was dominated by Microsoft's DOS operating system. While DOS will undoubtedly remain dominant for several more years, it is increasingly challenged by OS/2 the second generation operating system from Microsoft and IBM and by AT&T's Unix.

OS/2, with its graphical user interface Presentation Manager, represents a significant step forward in personal computing. The new operating system is designed to take full advantage of high performance microprocessors by providing multi-tasking capabilities that enable a personal computer to perform several applications simultaneously.

Presentation Manager also brings the ease-of-use features pioneered by Apple Computer on its Macintosh to the rest of the personal computer world.

Since the introduction of the first version of OS/2 three years ago, its market impact has been limited by a lack of applications software. Fewer than 50 applications designed to run on OS/2 with Presentation Manager are so far available.

Meanwhile, "Windows", Microsoft's program that upgrades DOS into a graphical environment with multitasking, is winning increased support. In June, Microsoft is expected to launch a new version of Windows that will provide users with Macintosh-like features on a standard IBM-compatible personal computer.

Portable personal computers are quickly emulating the full functions of a desktop machine in ever smaller and lighter form

Unix, traditionally a minicomputer operating system, is now finding its way on to networked personal computers and is dominant in the market for computer workstations.

With the introduction by Apple Computer, Hewlett-Packard and others of graphical user interfaces for Unix which make the system far easier to use, Unix is becoming a serious contender in the personal computer arena.

Confusion over software standards is one of several factors that have led to slower growth of personal computer sales over the past year. Also inhibiting growth in the US are general economic conditions and the more mature state of the personal computer market. The markets in Europe and Asia are now growing much faster than in the US and are expected to continue to do so for several years.

Disappointing performance by Apple Computer and the financial problems of companies such as Kaypro have led to dire warnings of a broad slowdown in the personal computer market by some analysts.

However, these predictions must be viewed in the context of a business that has grown at a rate of more than 20 per cent a year for the past decade.

This year, the personal computer market may grow by a mere 10 per cent worldwide, with significantly slower growth in the US market.

Slowing growth is sorting out the men from the boys in the personal computer industry. Several secondary players have already disappeared from the scene and more may well follow. However, industry leaders have strengthened their position over the past year. The top five suppliers now account for almost 40 per cent of the world market.

IBM's share of the US personal computer market is stabilising at about 20 per cent after falling precipitously over the past two years, according to market researchers.

Winning market share are Compaq which now holds about 8 per cent of the US market, up from 6 per cent two years ago, and Apple Computer, which holds a 10 per cent portion of the US market, up from 9 per cent, according to International Data Corporation, a market research group.

The business market dominates the attention of most US personal computer manufacturers as sales of "low-end" personal computers to consumers, schools and businesses have slowed significantly.

At the high end of the personal computer performance scale, sales of very powerful personal computers, which compete with computer workstations are growing vigorously as they increasingly replace minicomputer terminals.

However, sales of portable, or laptop, computers are booming, with market growth expected to top 40 per cent this year. Emerging as leaders in the portable personal computer market are Zenith, Toshiba, Compaq, Tandy and NEC – with growing competition from Sharp.

Over the past year, handheld or pocket computers have also been launched by several manufacturers. These tiny computers rely upon the very latest chip technology to cram all the functions of an IBM-compatible computer into a pocket-sized case.

In the 1990s, personal computers are expected to evolve into notebook-sized devices with all the functions of today's desktop machines plus the ability to display video pictures, store voice messages and interpret handwriting.

The desktop computer, meanwhile, will become more closely linked with corporate computer systems and in a sense less "personal". It will, however, become increasingly easy to learn to use, and like the personal computer will incorporate multi-media capabilities that allow it to take on the role of a picture-phone or a television set or a fax machine as well as drawing upon network resources to bring the power of a supercomputer to the desktop.

Share of 1989 US personal computer market ($ sales)

IBM	20.1%
Apple	9.8%
Compaq	7.6%
Zenith	5.4%
Sun Micro	3.8%

Source: International Data Corp

A new workstation culture is emerging

More power for users

MOST computer users will find themselves sitting in front of a workstation in the next decade. The days of the so-called 'dumb' terminal/central computer are fast disappearing to be replaced by a combination of powerful desktop computers, networks and central database servers.

The recent financial figures of established suppliers of the old forms of computing show only too clearly how times have changed. IBM's mainframe sales are flat, DEC is having problems sustaining its growth and Unisys has been forced to change its direction – including a change of chief executive.

By contrast, companies such as Sequent, Apollo and Sun Microsystems have shown where the action is. The workstation will change the face of computing beyond recognition and create an entirely new culture which will be as different from the old mainframe culture as current personal computing is. The result should be greater power to end users and a move away from the technology-intensive systems of the past.

The major manufacturers are gearing up to meet the new demands of this technology – but there are reservations about the cultural changes which will result. In the opening months of 1990, IBM has fought back strongly with the announcement of its RS/6000 and an upgraded PS/2 – both aimed squarely at the developing workstation market.

DEC, too, has recognised that it must move towards a product range which gives users more choice. IBM's announcements were especially interesting because they flew in the face of established IBM policy. The RS/6000, based on IBM's latest version of reduced instruction set computer (risc) technology, is an archetypal workstation system.

It comes not as a single box with a number of screens attached to it, but as a set of powerful local workstations, connected together by network software to a central database or 'file server.'

As much of the processing as possible is done locally and, only when data is accessed or updated is it necessary to talk to the file server. IBM also took a rare leap forward technologically with the RS/6000 - offering a very competitive price/performance ratio.

DEC replied earlier this month with new workstations of its own design but they did not have the raw power that IBM managed to pack into the RS/6000. Mr Donald Gaubatz, group manager for workstations at DEC said that the new products had better graphics than IBM's machines and will fit on a desktop. Analysts, however, were not too impressed with the DEC machinery. The conclusion is that IBM has made a genuine technological leap rather than simply fine tuning its existing designs.

The DEC computers are based on a risc chip from MIPS Computer Systems which will give 24 million instruction s per second of processing power; the RS/6000, however, runs at up to 34.5 millions of instructions per second. Ten years ago, a mainframe running at 10 million instructions a second was regarded as fast.

The workstation will change the face of computing beyond recognition and create an entirely new culture for computer users

IBM still sees the RS/6000 selling into a traditional corporate structure, however. It might have distributed the technology, but it recognises that many of its customers will want to keep a leash on users. Whether they will be able to, remains to be seen. But it is not only established manufacturers like IBM and DEC who are homing in on the growing demand for workstation systems.

Personal computer manufacturers such as Compaq and Olivetti have also seen the potential of the market. Both have made significant product announcements in the last six months – Olivetti with its CP486 range and Compaq with its new range of machines.

In both cases, the systems throw down a challenge to existing centralized systems. And, of course, there is a plethora of East Asian companies - Mitsubishi, Toshiba, Sony and Matsushita - who also want a slice of the cake.

The wide adoption of standards has provided a static target for the clever production engineers of Japan to produce workstation boxes to order. But the development of workstations has not occurred in a technology vacuum. Cultural changes in industry generally have accelerated growth and acceptance of the idea.

During the 1980s, the trend towards decentralised operations provided the opportunity for many large users to re-assess their computer operations. They found that many applications involved only a small number of people working together. The concept of the 'workgroup' was born and it needed a different kind of computing to support it.

"If you look at the structure of organisation in the traditional data processing department – it reflects the culture of the company – central control, top down hierarchical systems," explains Richard Stone of Olivetti UK.

"This organisational culture is changing and involves more local information and autonomy," he adds. It also means significant change in the role of the data processing department. Over the last decade, more and more data processing departments have metamorphosised into information centres or information systems departments. They support workstation users in what they want to do, rather than dictating to them as they did previously.

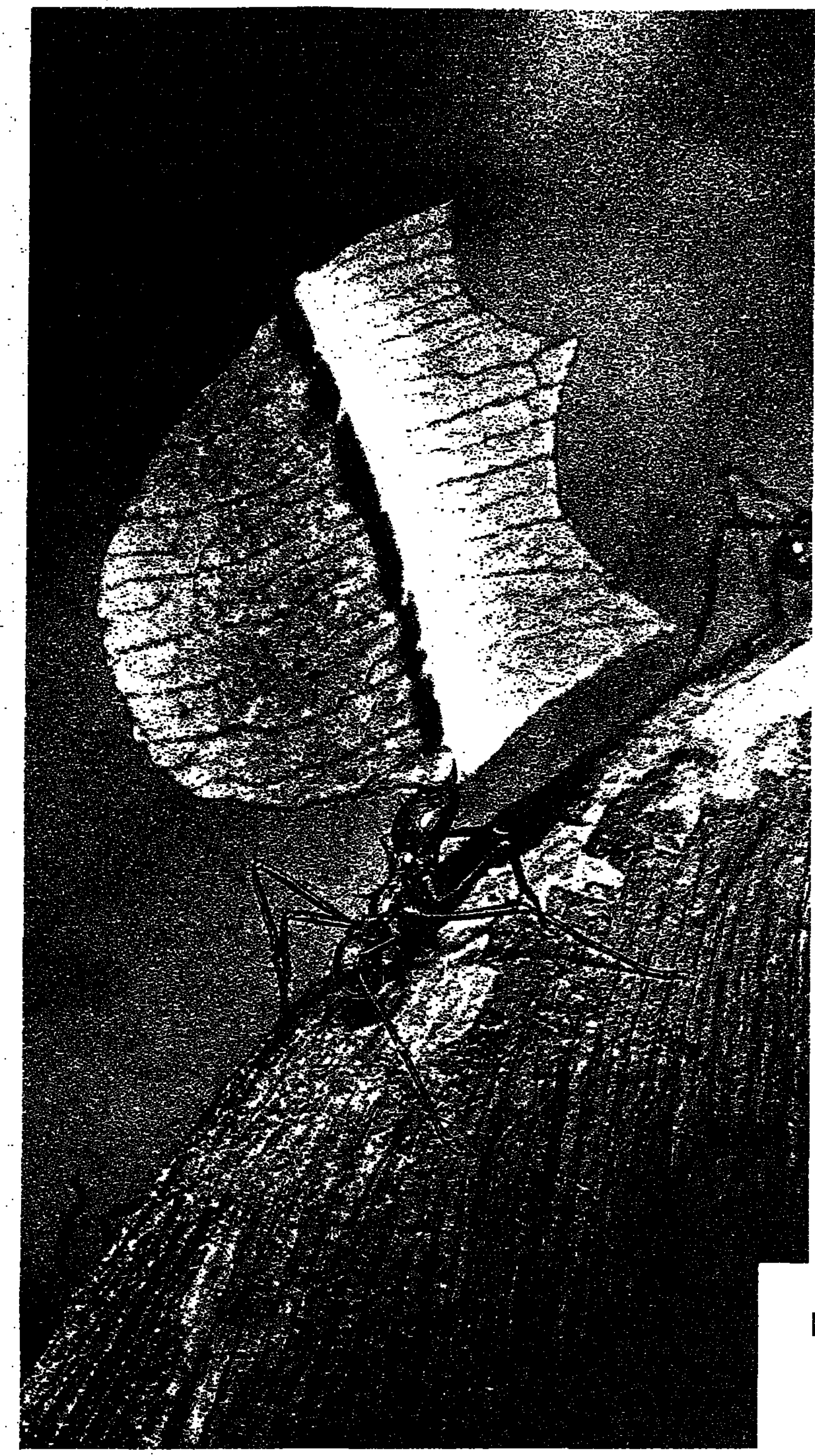
Initially, workgroups were equipped with networks of personal computers or expensive proprietary systems like the Sun Microsystems range. But advances in personal computer technology and the wide acceptance of software standards such as Unix and the C programming language have created what amounts to a commodity market for workstation products.

Theoretically, this means that purchasers can buy the workstation they prefer from one supplier, the networking software from another and the central database server from yet another.

They all conform to standard interfaces and should, therefore, talk to each other. In practice it is more complicated - but it is achievable. There still remains a strong role for the central information systems department.

Economies of scale in purchasing, enforcement of standards, systems security and data integrity are just a few reasons for its continued existence. But it must learn to co-exist with end users and step back from its traditionally technocratic attitudes.

Philip Manchester



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OPEN SYSTEMS CONCEPT

So near yet so far

For many users, open systems must now be tantalisingly close, yet frustratingly still far away. The whole concept, where computer systems of virtually any make or type can be connected together to create a heterogeneous whole that is greater than the sum of the parts, remains largely that – a concept.

Yet it is now closer to a working reality. Digital Equipment Corp (DEC), for example, is already claiming it will be the first supplier to announce conformance to the Open Systems Interconnection (OSI) seven-layer reference model on all its systems before the end of the year. This is up to a year before IBM launches its compliance with the first five layers model in mid-1991.

The OSI model is a key element in moving open systems from concept to reality.

The seven layers set out specific standards that cover all aspects of interconnecting different computers together, from the physical attachment of communications lines, via the protocols used to communicate information between them, the standard presentation of data, and the way in which different applications

The concept is now closer to a working reality, says MARTIN BANKS

and common services link together on a practical network.

In conjunction with this question of linkage, however, comes the question of using common software applications on different systems. Much of the discussion in this area has been conveniently shortened to one word – Unix – but it is proving to be not the open systems panacea some have suggested.

The Unix operating system has been the focus for much attention in the open systems debate over the last two years. This is the result of the very public schism between the suppliers that sided with AT&T, the owners of the originators of the Unix system, Bell Laboratories, which formed the Unix International group, and those that felt ostracised by that group and consequently formed the rival Open Systems Foundation.

The major trouble with Unix as a standard for open systems is that there is no one standard implementation of the system. While the rivalry between Unix International and Open Systems Foundation may bring the choice down to two, the goal of a single operating system under which wide-ranging applications and data portability can be achieved is still some way off.

There are those who contend such a goal is missing the point of open systems standardisation. DEC, for example, suggests that, while Unix is an important operating system, it is not the only one.

MS-DOS and OS/2 on desktop workstations will still be prevalent into the next century. DEC's own proprietary operating system, VMS, will still be used for both workstations and servers. And IBM's own proprietary operating systems, such as VM, will be found on many back-end database engines in the larger networks.

Practical open systems, therefore, will be about the ability to create heterogeneous networks that can accommodate and utilise all or any of these mainstream systems. The most important factor will be the protection of the user's existing investment in hardware, applications and data.

The bulk of the standardisation for open systems has been agreed – at least in principle – and most manufacturers and suppliers have made various forms of public commitment to them. Now, however, users are starting to confront the practical problems of implementing workable solutions, and that will hinge as much on a supplier's engineering skills as on adherence to accepted standards.

This leads to the possibility that the most appropriate companies to engineer open systems solutions may not be the companies that have set the open systems standards.

According to Harvey Parr, managing director of systems integrators, ACT Logsys in Hemel Hempstead, this may come about because the imposition of standards brings some inevitable trends. Hardware, for example, is now a commodity item.

The choice available to users is quite restricted already: various forms of IBM's PC-compatible system, the Apple Macintosh, IBM's RISC machines, DEC Vaxes, HP workstations and servers, systems based on the Motorola processor family and hardware from Sun Microsystems and MIPS Computers.

The number of processor suppliers is smaller and even more commodity-oriented: Intel, Motorola, Sun Sparc and MIPS predominate. And now both Intel and Motorola, leaders in the chip producing business, are moving strongly into the manufacture of workstations for the OEM market.

In operating systems, Unix, MS-DOS and OS/2 are pushing the commodity concept even further, despite the fact that there are still too many different versions of Unix available.

This problem is most likely to be solved by the likes of Intel and Motorola, both with Application Binary Interface versions of Unix available for their processor families. This should give Unix machines based on those processors the same applications portability as now taken for granted on PCs with MS-DOS.

There is now even a commodity trend in applications software, with an increasing number of users creating tailored applications based on database systems from the likes of Oracle, Ingres and Informix.

This trend towards commodity products, according to Parr, means that open systems companies will tend to polarise, focusing on either providing the base technology – the commodity items that meet the open systems standards, or on the application of technology for users' specific needs.

So as open systems start to move from the standards committee rooms out in to the real world, the argument has begun to shift to which companies might be the best bet for successful implementation.

According to DEC, the evidence points to those with both sound engineering capabilities and substantial financial resources. This is because the level of investment being both made and protected by users is such that they will demand assurances that an open systems supplier will still be around in ten years' time.

Advances in printer technology

Era of the desktop laser

TEN YEARS ago, the market for daisywheel printers was booming. Today, it is virtually bust.

Although growth is slowing down for dot matrix printers, they continue to sell well for the time being, but the rising star is the desktop laser printer.

Before the laser printer arrived on the scene, the daisywheel printer had the edge over dot matrix in terms of quality for business correspondence.

However, the daisywheel is relatively slow and it was not uncommon for business users to buy one of each. Now they only need to buy one laser printer.

In the area of impact printers, the consumer report, "What to Buy for Business" has a new survey of nearly 200 dot matrix and daisywheel printers from 24 manufacturers - "with so much choice,it's easy to lose sight of the features that matter most," it says. There is a guide to "best buys," plus others rated as "good value," and "worth a look."*

Today's best-selling laser printers incorporate Canon's print engine. However, Canon is reluctant to enter the market itself with any force for fear of upsetting its established customer base of original equipment manufacturers (OEMs), according to Dataquest.**

As the undisputed industry leader, Hewlett Packard has become the acknowledged low-end trendsetter as well.

The IIP is the first laser printer sold for under $1,000. More importantly, it has been positioned as a personal printer.

The total value of the European printer market from 1989 to 1993 is forecast at around $37.8bn, with Germany leading at $9bn, followed by France with $7.7bn, and the UK with $7.2bn.

Old fashioned typewriter ribbon-type printers – called impact line solid character printers – are now largely a replacement business, and are in gradual decline.

In the case of high-speed non-impact page printing systems with speeds greater than 100 pages per minute (ppm), there are only a few suppliers of these large and costly systems, and the market is not likely to increase.

Medium-speed page printers operating at 20 to 100 ppm will take their place, and this is one of the major growth sectors in the printer business.

Low-speed page printers, or desktop lasers, have almost wholly replaced solid font "letter quality" serial impact printers, while also restraining the previously almost untrammelled growth of serial matrix products.

They are increasingly becoming the printer of choice in local area networks.

Non-impact serial correspondence quality printers such as thermal transfer and ink jet never quite lived up to their early promise.

Ink jet is only now really gathering momentum, largely on its ability to produce colour graphics output.

Desktop lasers show the most growth potential.

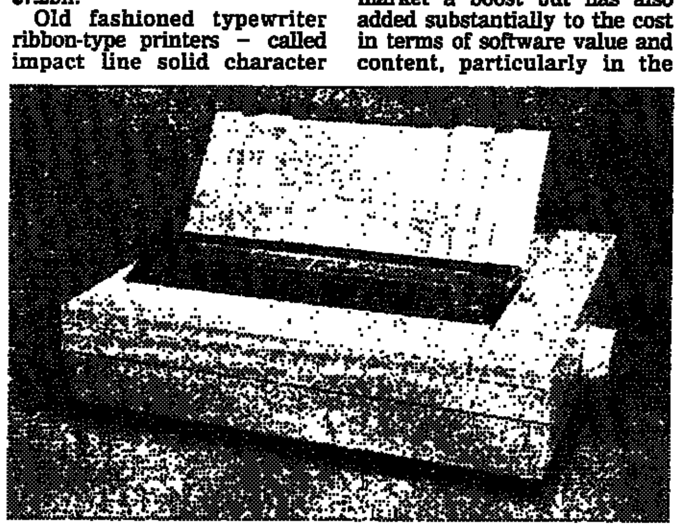
The 6 to 8 ppm band is the dominant one at present with more than 80 per cent of unit shipments and two-thirds by value.

It will retain its lead although newer devices, first in the 10 to 12 ppm speed range, and later the 15 to 20 ppm range, will steadily increase their share, says Frost and Sullivan.

The European market for desktop lasers, worth about $750m in 1987 for around half a million units, is forecast to grow two and a half times by 1993, with a quadrupling of unit shipments.

Desktop publishing has given the desktop laser printer market a boost but has also added substantially to the cost in terms of software value and content, particularly in the case of Adobe's PostScript page description language which enjoys a virtual monopoly for serious page design work requiring a range of fonts.

The HP Deskjet printer from Hewlett-Packard also runs from IBM and IBM-compatible personal computers. It produces laser-quality corre spondence, internal reports and letters with 300 dots-per- inch resolution for text and graphics



Epson dominate the dot matrix printer market: pictured here is the company's compact LX850 model

Most licence Adobe and this is expensive – "although it cost us six months out of the market, we developed our own Adobe-compatible font families in Japan," says John Carter, general manager of Brother's office equipment division.

The Brother HL-4 prints four pages a minute and retails at around £1,400. The HL-8 doubles the speed, but costs more than 40 per cent more. But the PostScript-compatible HL-8PS retails at around £3,500.

"Our own versions of Times and Helvetica are similar in appearance, but because we developed them ourselves we have saved ourselves a lot of money on licence fees," adds Carter.

"We also supply a slot-in PC board from a US company called QS which provides true Adobe PostScipt compatibility," he adds.

"PostScript is usually slow, and some documents take half an hour to come out if there are lots of graphics, but this board speeds it up by about 20 times.

"People such as Linotype get very protective about their typefaces. Fonts have been very expensive up to now, typically £195 per font end-user price.

"Meanwhile, the prices of laser printers are falling below £1,000 on the High Street for a four page a minute printer like the HL-4, and soon there will be two page a minute printers which will drive prices down even further."

Hewlett Packard is now determined to catch up with Adobe with its own page description language, PCL Level 5, which will provide scalable fonts.

"I think PostScript will come down in price," says Phil Goodman, business manager at printer and peripherals distributor Rapid Recall.

Putting PostScript into a laser printer is the most efficient way to optimise performance. A lower-cost alternative is to load in fonts off diskette into the computer's main memory, but this can be much slower, and so is only suitable for low volumes.

"The problem is that with any software package, a lot of research and development spending has to go in," he adds.

"I think a lot of printer manufacturers resent the licence fees that are currently being demanded by Adobe. Whether Adobe is strong enough at the moment to hold them all off, I do not know.

"The thing is that PostScript works. It is a *de facto* standard which a lot of people have adopted.

"We have all got used to there being so much cheap PC software available that the expectation is that this too ought to be cheap. But there is an awful lot of programming code and intelligence which has gone into it, and somebody has to pay for it.

"To come into a market from nothing and win, you really have to have a strong product."

**"What to Buy for Business," 11, Kings Road, London SW3 4RP (Tel.01.730.0403).*

*** Dataquest Research Newsletter, November 1989: "Laser Printers: what drives these engines?" (Tel: 0895 835050).*

Boris Sedacca

Data storage and re-writeable optical disks

Significant breakthrough

Optical disk technology has come a long way since it was first introduced into a sceptical market a decade ago. During the 1980s the technology stimulated new markets in hi-fi, with the compact disk, and in computing, where it is increasingly used for storing high-volume video and document images.

Optical disks have two great advantages over the magnetic devices which have dominated computer storage for more than 30 years: first, they are rugged and stable, offering the prospect of long-term, error-free and portable storage; second, they are capable of storing a vast amount of information. While some high-density magnetic floppy disks hold an impressive one megabtye of data, a similarly sized optical disk usually holds 600 times this amount.

The computer industry has been quick to see the advantages of optical disk technology. Optical disks known as CD-roms (compact disk read-only memory) are used to distribute books, catalogues, and large databases in a pre-recorded form. Other disks, known as worms (write-once read many), are distributed "blank" and are then filled by the user. By 1993, according to market researchers Frost & Sullivan, the combined European market for optical disk drives and the optical media will reach $900m, up from just $37m three years ago.

The take-up of optical technology to date, however, has been hampered by two critical technical limitations: until recently, it has not been possible to erase or change information on the disk; and data retrieval is, by magnetic standards, extremely slow, making the optical disk almost useless for fast, on-line applications where the information is needed quickly.

A third limitation is cost. Some suppliers are hoping to persuade users to replace their slow and unwieldy tape drives, used for disk back-up and long-term archiving, with optical disk drives. So far, however, tape remains much cheaper, and the introduction of digital audio tape (DAT) is making it even more cost effective.

The problem of slow retrieval-speeds appears to remain intractable. Using today's technology, optical disks will always take at least twice as long to retrieve data as magnetic disks. This may not sound a lot, but time delays in collecting data can be dramatically amplified when computers are running complex applications or support large numbers of people at their terminals.

This limitation has effectively put a cap on the size of the optical market: "At one time, people thought optical technology could replace everything. Now it is clear that optical disks are not a direct replacement for magnetic disks or tapes," said Mr. Peter Green, marketing director for computer peripherals at Hewlett Packard.

Solving the problem of "rewriteability" has long been a holy grail of the optical disk developers, says ANDREW LAWRENCE

Hewlett Packard, like most major computer manufacturers, believes optical storage has its place between high speed but potentially unstable magnetic disks and slow, but reliable, magnetic tape.

It now appears that the most promising market for optical disks will be where the user needs access to large amounts of high-density information, but does not require it within seconds. The most obvious example is document image processing (DIP). A DIP system can be used to store and manage hundreds of thousands of facsimile copies of documents. Because the facsimile image takes up so much storage memory, optical disks are a prerequisite.

Solving the problem of "rewriteability" has long been a holy grail of the optical disk developers and offers suppliers their best hope of opening up the optical disk market. For archiving purposes and for applications where a strict audit trail is required, it is useful to have a computer record which cannot be changed, but for most users the lack of rewriteability imposes unacceptable limitations on the way they use computers.

By combining optical technology with magnetic methods, companies such as Sony, Ricoh, Maxtor, Panasonic and Canon at last feel confident enough to offer re-writeable high-volume storage products By the middle of this year, at least 20 companies will be either manufacturing or distributing re-writeable magneto-optical disks.

The re-writeable optical disk has caused much excitement, with some analysts predicting that the young market for write-once devices will be quickly eclipsed. Mr Richard Todd, product manager for storage devices at Panasonic, predicts that erasable devices are going to find markets wherever there is a need to store large amounts of transient data. He cites an example where an estate agent might want to keep resource hungry digitised photographs of a property on disk for a few months before destroying the data. More commonly, erasable optical disks could be used for temporarily backing up large numbers of faster magnetic disks.

Despite the breakthrough, the re-writeable optical disk still has some way to go. Mr John Dring, marketing manager for the Philips Megadoc product, says the re-writeable optical disk is destined to be a niche market product, albeit "a large niche", because of the various technical limitations. He believes it will take "part of the tape market, part of the write-once optical market, and part of the magnetic market".

Apart from the slow retrieval speeds which limit all optical devices, Dring believes the durability of erasable optical disks has yet to be proven. Erasable disks have a finite life because the technology involves changing the surface of the disk, he says: "You are melting holes and repairing holes. Its a physical thing."

However, claims by Sony, Panasonic and others that their disks can be updated up to 10m times suggest that this will not be a serious limitation.

Continued on facing page

A standard solution is elusive

THE computer industry is struggling to create common standards that will enable different types and brands of computers to share data and software and resolve the Tower of Babel atmospherein the computer world.

The need for industry-wide standards is widely recognised. Observers believe the establishment of *de facto* software and hardware standards allowed the personal computer market to flourish over the past decade and become the largest product sector in the industry with annual sales of more than $40bn.

The main advantage of personal computer standards was that they spawned a wealth of applications programs. Software designed to run on IBM's personal computers could also run on those manufactured by IBM's competitors.

For computer buyers, this has meant that "shrink-wrapped" off-the-shelf applications programs have been widely available for personal computers. For software developers, the large base of potential users has created an incentive to create more programs which in turn sell more computers.

To recreate this phenomenon, Sun Microsystems is attempting to establish a similar set of *de facto* hardware and software standards in the market for computer workstations.

LOUISE KEHOE on the struggle to resolve the Tower of Babel atmosphere in the industry

Sun bases its "open systems" approach on its SPARC microprocessor, which it has licensed to several chip-makers, and on the widely used AT&T UNIX operating system. Sun positively welcomes other computer manufacturers to "clone" its workstations.

However, only a few other manufacturers have taken Sun up on its bid to create workstation standards. LSI Logic, one of the chip-makers licensed by Sun to produce the SPARC microprocessor, is, however, trying to accelerate the trend with its recent introduction of a set of chips designed for Sun "clones".

The "chip set", called the SparKIT, could spark a proliferation of inexpensive workstations much as earlier chip sets helped computer-makers to clone IBM's personal computers in the mid-1980s, many believe.

Six computer-makers are designing the SparKIT chip set into future computers, LSI says. The first Sun clones are expected in June.

While it is relatively easy to establish standards in new sectors of the computer industry, the process is proving to be far more complex in longer established segments such as minicomputers and mainframes.

Despite the logic of standardisation, it goes against the grain for the leading computer manufacturers to abandon the proprietary software and hardware that has set them apart from competitors in the past, and upon which their businesses have been built.

This is especially true of the industry's strongest players – IBM and Digital Equipment – for whom open systems represent a big competitive challenge. These companies in the past have used the proprietary nature of their technology to protect their customer bases from would-be intruders.

The extent to which these industry leaders have embraced the "open systems" trend is therefore significant. Both Digital Equipment and IBM have recently introduced powerful workstations with the UNIX operating system. Digital Equipment has gone so far as to assert that it intends to be the leading supplier of open systems in the 1990s. Similarly, Hewlett-Packard, the third largest US computer manufacturer, is a leading proponent of open systems.

This trio, joined by their European and Asian counterparts, are, however, determined to shape the standards upon which "open systems" are to be based.

This has led to an industry-wide battle over the definition of standards – in particular the establishment of a "standard" form of the AT&T UNIX operating system.

Hardware standards are not even a possibility in the mainframe, minicomputer and workstation segments on the computer market. This makes the role of software, in the form of operating systems and programs designed to smooth over the differences between different types of processors, all the more important.

Dozens of different varieties of UNIX are used on different types of computers. To resolve the problem, AT&T set out to develop a single "unified" version of UNIX.

Instead of drawing the industry together, however, AT&T's plan caused an industry-wide schism between those who joined with AT&T on the understanding that they would become involved in the development of a "standard" version of UNIX, and those who rejected AT&T's plan.

The later group, including IBM, Digital and Hewlett-Packard, formed the Open Software Foundation and announced plans to develop their own, rival version of UNIX.

Last autumn, AT&T introduced its "unified UNIX" and demonstrated the operating system running on more than a dozen different types of computers. In a move aimed at mending the industry rift, AT&T also proposed selling equity stakes in its UNIX Software Operation to other computer companies.

Recently, however, negotiations concerning the future ownership and control of UNIX and other technical standards issues broke down and the two industry groups are now deadlocked. It appears unlikely, therefore, that a single "standard" version of the critical UNIX operating system will emerge soon.

Personal computer hardware standards were split by IBM's introduction, three years ago, of its PS/2 range of personal computers with a proprietary bus architecture called "Micro-channel". In response, IBM competitors designed an alternative architecture which they have called Extended Industry Standard Architecture.

Similarly, personal computer software standards are in a state of flux since the introduction by Microsoft of OS/2, an operating system designed to take full advantage of the advanced features of the latest microprocessors.

Ultimately, computer buyers will decide the outcome of the industry's standards battles by voting with their purchases.

Big demand for third party maintenance

A healthy market

MAINTENANCE has two meanings in the computer business. Among software specialists, it means keeping old programs up to scratch and adding new functionality.

In the hardware world, it means keeping the machines up and running – and a new and increasingly important source of revenue for computing services companies.

Even today, when central processors rarely fail, when systems have duplicate parts for fault tolerance and broken parts can be diagnosed over the telephone, there is a strong and growing need for maintenance – especially with the advent of multivendor sites.

According to Frost & Sullivan, the marketing consultancy,the European market for third party maintenance is set to rise 54 per cent in the next five years.

Third party maintenance (TPM) companies service machinery which is not of their manufacture. Indeed, the hardware in their care may be made by their competitors. The health of the market reflects customers' desire for "one stop" maintenance shopping with a single maintenance team and a single contract for all their equipment.

In 1988, according to Frost & Sullivan, the European market for was worth about \$599m; by 1993, it is expected to grow to \$925m.

Manufacturing industries are the largest consumer of TPM services followed by banking and retailing.

Government and defence is the fastest growing sector of the market as cost constraints force re-examination of budget priorities. The UK is easily the European market leader in third party maintenance, with sales in 1988 of \$231m, forecast to rise to \$323m in 1993. The French were in second place with sales of \$133m and Sweden was in third place with sales of \$51m.

The UK is also the most volatile market for third party maintenance with a group of small companies jockeying for position behind the market leader, Granada Computer Services.

The competition has generated a spate of acquisitions and mergers. Among the more interesting is Ferrari Holdings, backed by the merchant bank Singer & Friedlander, which has identified third party maintenance as a key element in its growth strategy.

Singer & Friedlander also has a stake in Apricot Computers of Birmingham which earlier this month sold its hardware manufacturing division to Mitsubishi Electric of Japan for £39m, leaving it free to concentrate on computer software and services.

The turning point for Apricot was its acquisition last year of Information Technology (ITL), formerly Computer Technology and the UK's oldest minicomputer manufacturer. The hidden value in the ITL acquisition, however, was the company's well established and profitable maintenance division.

As part of the deal with Mitsubishi, Apricot will retains the right to service Apricot computers for a minimum of three years.

The European market leader, Granada Computer Services (GCS), achieved its position through an aggressive acquisition strategy. It is one of the principal arms of the Granada group with service centres in the US, the UK, Ireland, and throughout mainland Europe. It claims a 20 per cent share of the European market, four times that of its nearest competitor.

According to Mr Conor Kehoe, GCS chairman, investment in the company now tops \$250m. The company's acquisitions on its way up include Computer Field Maintenance, DPCE and Mainstay, all well respected names

Mr Kehoe says that TPM companies have to be large. The investment needed to stay at the leading edge of the technology is increasing, while profits margins are steadily narrowing. Companies had to operate on an international scale to grow profitably.

His views are backed up by Frost & Sullivan which point out that computers manufacturers (who see maintenance as an important route to increasing their own revenues and are concerned about the possibility of losing business to independent third party maintenance companies) are setting the pace these days.

They are offering extended warranties, lowering maintenance charges and in some case entering the TPM market themselves by offering to service their competitor's equipment.

An excellent example is Olivetti of Italy which is steadily

Mr Conor Kehoe, chairman of Granada Computer Services: the company achieved its position as European market leader, through an aggressive acquisition strategy.

growing its TPM business across Europe. Granada, Olivetti and Sorbus together account for about 40 per cent of the European TPM market

Mr Kehoe argues that as TPM companies become increasingly international, a new set of international products will emerge. He gives as an example of the necessary marketing approach the requirements of a company like British Airways.

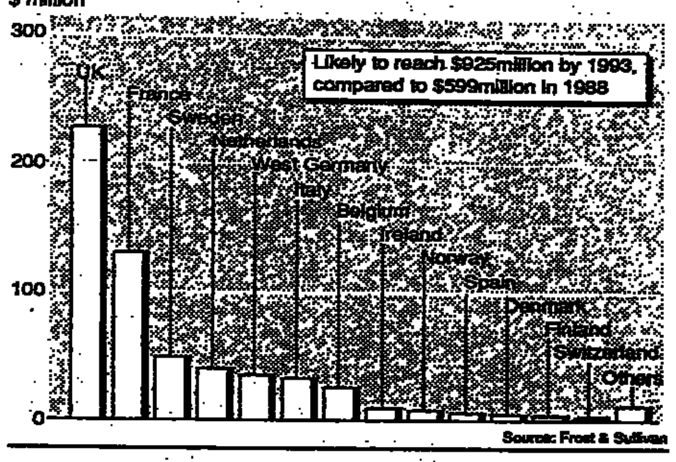
It needs high "uptime" on its computer systems which are a mixture of machines from different manufacturers. While its maintenance requirements are broadly similar to other companies with a comparable mixture of equipment, it has specific needs which have to be met.

The answer, Mr Kehoe says is a maintenance team onsite with adequate spares and a commitment to cover all the machinery on site. The skills needed, ther working pattern and the target up time all have to be agreed with the customer.

Like most other areas of the computer business, however, a likely constraint on TPM in future is likely to be the shortage of skilled engineers. Computers, in the form of expert systems, may make it possible for less skilled engineers to carry out sophisticated repairs.

Alan Cane

European third party maintenance market



Source: Frost & Sullivan

Advances in optical disks

Continued from previous page

A more serious problem is that the magneto-optical devices now available share some of the instability problems associated with magnetic disks, making them unsuitable for critical back-up storage.

Later this year both Philips and Panasonic are launching re-writeable optical drives that use no magnetic technology at all. Unlike the optical drives, these will soon be able to read the write-once disks already on the market.

As ever, there is a trade-off; while these may eventually prove to be both faster and more stable than magneto-optic disks, it will not be possible to rewrite the disks more than 1m times – one tenth the number of rewrites possible using magnetic technology.

Many users, and especially those using departmental or stand alone desktop computers, will not notice or be concerned with the limitations on speed, durability or erasability.

The advantages of higher storage capacity alone will be enough to make an investment worthwhile.

Wang and Olivetti Filenet, two world leaders in document image processing, have already announced their intention to support re-writeable optical drives in their products within two years.

New markets: the introduction of machines using the 80486 processor takes the microcomputer into new markets. Pictured here is a Hard Disc Vision broadcast graphics system on Research Machines' VX-486. It creates video images and controls editing functions.

Dealers and distributors face complex problems

Squeeze on profits

THE PEOPLE who actually sell computers, be they dealers, distributors, value-added resellers (VARs) or a combination of all of those, are facing a range of interlocking problems and challenges.

High interest rates and a reduction in consumer spending are combining to squeeze profit margins, while at the same time the industry is going through a series of radical structural changes. The approach of the single European market is, if anything, accentuating these difficulties.

The smaller computer dealership, to the extent that it still exists, is at the sharp end of these developments. High street glass frontage has been unfashionable since the mid-80s, when a number of high-profile chain stores came and went, and those dealers with high street, or perhaps even overtly retail premises, face a combination of high after-sales service requirements and lower profit margins.

These two are perhaps inevitable on the high street: if you are selling single units to individual customers you must expect to have to educate your customers as you sell, and that necessity erodes profit margins. At the same time, if a company is selling fewer computers, it will anyway command lower margins from suppliers. Add a competitor a couple of miles away, and high interest rates, and you have a price war, together with an inability to fund expansion (or, in many cases at the moment, to fund borrowing).

There are several routes out of this cul-de-sac. The most decried is 'box-shifter' status, where a dealer relies on high volume to cancel out low margin. Move enough machines, goes the theory, and you can keep price low while still making money, even on a low margin.

Two other broad selling methods can be identified. The Computerland franchising chain was founded in the US as a 'glass frontage' operation, but has been structured rather differently in the UK for historic reasons.

Computer Group, a Manchester-based company that accounts for a substantial proportion of Computerland's outlets, has minimised high street frontage while increasing the amount it spends on service, support and education.

The formula allows the dealer (or reseller, to use the vogue word) to command higher prices, and to sell extras on top of the basic equipment. Paradoxically, this approach appears to attract the more educated – and prosperous – customer.

The other selling method is that of the 'dealer-distributor', now the City's darling, but still rather more than just a flash in the pan. Companies like Computacenter and Businessland fall into this category. Distributor P&P's purchase of

While the dealer-distributor is taking supplies direct from the manufacturer, and pitching for the corporate customer – thus taking itself into the higher echelons of the market – it is often, like the box-shifter, heavily reliant on high volume. It gets a better margin from the manufacturer because of high volume, while its customers get a better margin from it, because of high volume.

It can, however, compensate for the inevitable squeeze on margins by selling added services, such as training, and by reduced sales costs (because once you have an account, the corporate customer will automatically come to you for more equipment until the account comes up for tender again).

Those who say that this is the future of the computer trade postulate a world where there are around half a dozen major dealer chains in the country selling to the blue chip accounts, and selling more than half of all computer equipment, with the rest of the market being served by a large number of dealers, themselves serviced by distributors, just about scraping a living.

This analysis is however challenged by the two largest distributors in the US, Softsel and Ingram Micro D – both of whom are building European operations – and by the German company, Computer 2000, which since its link-up with UK distributor, Frontline, has established itself as the largest trade-only distributor in Europe.

One of the major issues for 1990 is the extent to which Europe is influencing plans, prompting the formation of large power blocks in both the dealer-distributor and trade-only distributor sectors.

Computacenter last November was one of the first dealers to produce a European initiative, linking with German dealer CompuNet and French Groupe Random to form the International Computer Group (ICG), a Paris-based joint venture company.

The companies involved in Comec (Computer European Circle) plan to set up working parties to work out ways to co-operate in personnel exchanges, communications, and the development of common product strategies.

These groups, or groups like them which will eventually establish themselves across Europe, will present a serious threat to smaller dealers who do not have a similar kind of buying power.

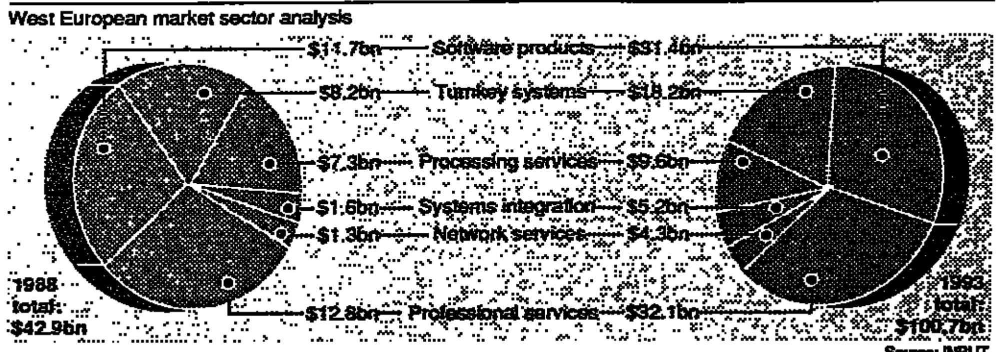
That is where pan-European distribution comes in. Softsel is the company that has been working towards this for longest, although early teething troubles mean that it does not actually have a large head start.

Continued on next page

■ SUPERGRAPHICS WORKSTATION: university software development is being demonstrated here on an IBM Risk System/6000 POWERstation 730. This computer, one of a series of four, has high-function 3-D graphics and relies on an a new generation of reduced instruction set computer (RISC) technology. This IBM-invented architecture, called Performance Optimisation with Enhanced Power (POWER), separates the processor into three independent functional units that permit concurrent execution of multiple instructions.

Computer software and services

West European market sector analysis



Source: INPUT

Philip Manchester on the user as programmer

A new software role for users

For the last 20 years, the computer industry has searched for ways to build software quickly and economically.

The emphasis has been on the use of technology and management techniques to improve the quality and quantity of software by professional programmers. But with new techniques such as software engineering and object-oriented design, the emphasis has shifted towards greater involvement by end-users.

There has been a succession of false claims of 'productivity breakthroughs' on the back of technology fixes – including better programming languages, automated tools to generate programs and system design aids.

Although only a partial success, these advances have helped to change the perception of the software production process to one more in line with traditional engineering. The result – software engineering - provides a better understanding of how computer systems are constructed, how they evolve and how this evolution can be controlled.

But software as engineering changes other things, too. It allows computer systems to be built from 'off-the-shelf' software components and promises to bring more power to end users of computers. Although there has been a parallel effort to find ways of transferring programming power to users, attention has been focussed on tools, methodologies and project control for the professionals.

But the shift from traditional, centralised computing to networks of personal computers and workstations, combined with software engineering, has raised serious questions about the role of professional programmers.

Networks distribute much more computer power to end-users, change the shape of applications and, consequently, the way they are built. The role of the professional programmer must change to meet the new demands.

"During the 1980s there was a massive move towards decentralisation – both in corporate terms and in information systems terms," says Roger Wolfe, a consultant with Butler Cox. Mr Wolfe has studied the database of projects built up from Butler Cox's Productivity Enhancement Programme (PEP) which includes many major software development projects carried out by the world's largest companies.

"We waited until we had a good sample – 400 full projects. We looked at areas which were of the greatest significance to PEP members and discovered that the role of information systems (IS) departments is changing. One important change is that IS managers recognise that they must allow users to do their own thing," Mr Wolfe notes.

It has been recognised since the early days of computing that the best way to make scarce programming resources more productive is to move the onus of application 'programming ' to the user.

End-users know about their business and want useful tools which will help them achieve their goals more effectively. It makes sense to provide them with the tools to solve their own problems – rather than t ry to solve the problem for them. The computer industry has produced a succession of technology 'fixes' to try and achieve this.

The first wave of 'user aids' were called 'Report Writer' languages. They allowed users to perform some elementary programming to produce output formatted to their own specifications. IBM's RPG (Report Program Generator) is an example. Report writer languages were followed by a number of variations which attempted to bring the power of programming to users. But they all suffered from a similar problem. If they were powerful enough to do all that users wanted of them, they were difficult to learn and use. If they were easy to use, they were too limited.

In the 1980s, personal computers acted as a strong stimulus for more powerful ways of manipulating data. The ever-inventive software industry has provided users with the tools to create their own solutions to problems. The spreadsheet program is a classic example. Lotus 1-2-3, the most-famous spreadsheet is a highly-specialised programming language, in addition to its obvious role as a spreadsheet calculator.

Advanced spreadsheets such as Microsoft Excel, Informix Wingz and later versions of Lotus 1-2-3 can be used for highly-complex applications across network which involve many users. But they can still be used for small-scale, desktop applications set up by individuals for their own use.

This form of bringing power to the user is likely to be pushed much further with new techniques under the umbrella of object-oriented design and programming. Pioneered by Xerox and Apple in the 1980s, this approach sits very easily with the concepts of software engineering. It views computers systems as a set of interacting, self-contained objects which can be assembled in different ways.

Bill Atkinson, the designer of the Hypercard object-oriented system packaged with Apple's Macintosh, compares it to Meccano or a software erector's set. Programs like Microsoft Excel already include many features drawn from the object-oriented approach and it is also working with Hewlett Packard on New Wave, a much more general object-oriented system. Other software suppliers have also taken note. Mike Baggott, of Canadian software supplier Cognos, sees the next major breakthrough coming from object-oriented techniques hitting the traditional data processing department.

"It has not permeated through to development departments yet – partly because it much more difficult to do it in a multi-user system," says Mr Baggott. "But it is starting to happen. The work we are doing with Ingres and Ashton Tate on Interbase is aimed in this direction. It is not exactly an object-oriented database – but it does embody similar concepts."

Mr Wolfe of Butler Cox warns that power must be distributed to users under the control of IS departments: "We have noticed that the swing to distributed computing has started to move the other way - as the problems of uncontrolled use of PCs have become evident. But IS managers can see that they must permit autonomous development - but they cannot allow a free-for-all," he says.

Object-oriented techniques could help to bring power to users in a controllable way. Personal computers have also caused a revolution in the professional programmers' world.

The modern programmer sits in front of a specialised 'workstation', connected to a development database, and work on the business of building and maintaining software in the same way that a clerk would work on an inventory control operation.

Personal computers (or workstations) and networks bring programmers, systems designers and end users closer together than ever before. They are all users of the same system each with a clear role to play. Object-oriented techniques allow professional programmers to build useful components which users can choose and combine to produce their own custom applications.

This would seem to be a much more natural division of labour and a clear way to solve many productivity problems in the software business. IBM executives are fond of an analogy with the early motor industry. In the days when cars were difficult to operate and maintain a large car manufacturer conducted a survey which showed that there would be a shortfall of a million professional chauffeurs within five years.

Rather than find ways to make existing chauffeurs more productive or ways to train massive numbers quickly, the motor in dustry decided it was time to make cars easier to operate.

The development of popular photography and the Kodak 'Brownie' camera shows a similar change of view by manufacturers.

The computer industry is on the verge of a similar change and object-oriented design promises to be an important mechanism to make it easier to produce useful software assembled by users for users.

■ A SOFTWARE training system, developed by AEG Olympia - part of the £24bn Daimler Benz group – is being launched at the "Which Computer?" show at the National Exhibition Centre, near Birmingham (April 24-27). The new system is designed to help corporate users give comprehensive training to small and larger groups.
Despite huge investments in personal computers, research has shown that most companies do not get the best from their investment in new technology because staff use only a fraction of the PC's capabilities, says AEG.
□ Pictured here is the new 386-based model 80 personal computer from AEG Olympia's expanding range.

Profit squeeze

Continued from previous page: The second of the large US distributors, Ingram Micro D, was spoken of as a possible partner for Frontline, but is now back to looking. Chairman Chip Lacey talks hopefully of building its main European presence, Brussels-based Ingramsoft, to achieve a $500 million turnover by 1995.

Despite recent consolidations, Lacey still feels he has plenty of time to get into Europe, and does not see a shortage of companies to buy – "virtually every distributor in the world is on sale right now, for the right price," he says.

There are however alternatives to consolidation, and these can relate to the way the technology itself is moving. Value-added reseller (VAR) is currently a buzz expression, and although there is nothing essentially new about a reseller commanding higher margins by employing its special expertise on a piece of hardware or software, the increasing power and complexity of the equipment, and the increasingly interchangeable nature of microcomputers and minicomputers, mean that value added services are increasingly required by customers.

The problem with this sector, of course, is that the saleability of products is related to the amount of expertise a company has over and above the main body of the market.

The market itself is on the technological treadmill, and therefore a VAR needs to make continuing investment in its own knowledge base if it is to avoid being reduced to just another small dealer.

As a survival route, however, it has rather more attractions than simply remaining a small, non-specialist dealer. That role has had scant appeal in the past few years, and there is no indication that the conditions will get any better in the decade ahead.

John Lettice